هكذا اصل الأصل

Austria	Sch 15	Indonesia	Rp 1600	Philippines	Pes 20
Bahrain	Din 0.650	Italy	L1100	Portugal	Esc 65
Belgium	BFr 35	Japan	Y550	S. Arabia	Rls 6.00
Canada	C$2.50	Jordan	Fils 500	Singapore	S$4.10
Denmark	DKr 7.00	Kuwait	Fils 500	Spain	Pta 95
Egypt	E£1.00	Lebanon	£L 6.00	Sweden	SKr 6.50
Finland	Fmk 5.00	Luxembourg	LFr 35	Switzerland	SwFr 2
France	FFr 5.00	Malaysia	Rm 4.25	Tunisia	Din 0.680
Germany	DM 2.00	Morocco	Dh 5.00	Turkey	L130
Greece	Dr 50	Netherlands	Fl 2.25	U.A.E.	Dh 6.50
India	Rup 15	Norway	Nkr 6.00	U.S.A.	$1.50

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

No. 29,029 Monday March 21 1983 D 8523 B

Slow puncture for Japan's motorcycle industry, Page 14

NEWS SUMMARY

GENERAL

Warhead rundown on Nato agenda

Nato Defence Ministers, meeting in Portugal this week, are expected to consider whether the alliance should withdraw unilaterally several hundred nuclear warheads from Europe over the next few years.

They will have before them a report from senior defence officials who have been studying how far the stockpile of some 6000 weapons could be cut without jeopardising strategy.

The warheads concerned are short-range battlefield weapons, including artillery shells and bombs to be dropped from aircraft. Page 2

Strauss move delayed

Bavarian Christian Social Union leader Franz Josef Strauss delayed again, until tomorrow, his decision on whether to accept West German Chancellor Helmut Kohl's offer of an unspecified job. Page 16

Nicaraguan request

Nicaragua has asked its leading commercial bank creditors to resume short term trade credits for the first time in nearly four years. Such lending was stopped after the country was forced to reschedule its debts following the overthrow of former President Somoza

More Assam trouble

Student agitators in Assam stepped up their challenge to the new state government with a new wave of violence in which at least a dozen people were killed in bomb explosions, arson, and stabbings. Page 3

Karachi violence

Many shops shut in central Karachi, Pakistan's largest city, on another day of religious violence in which police used batons and teargas to disperse demonstrators.

Thai appeal for calm

Thai Premier Prem Tinsulanonda appealed for calm after dissolving the lower house and calling for a snap general election on April 18. Page 3

Somalia concerned

Somalia President Mohamed Siad Barre said that neighbouring state Ethiopia may be planning a military attack in the disputed Ogaden border area.

White farmers' plea

Zimbabwe's white farmers are seeking urgent talks with the authorities about safety following the murder of four members of a white farming family. Page 3

Premier dismissed

Queen Regent Dzeliwe of Swaziland in southern Africa has relieved Premier Prince Mabandla Fred Dlamini of his duties.

Discotheque blast

Bomb blast at a discotheque in the southern Corsica town Porto Vecchio caused damage estimated at FFr 3m ($430,000).

Yachtsman drowns

International yachtsman Rob James, husband of round-the world solo sailor Dame Naomi James, fell in the sea from his trimaran off Salcombe, England, and drowned.

Daughter missing

London police are investigating the disappearance of the 17-year-old daughter of a Libyan diplomat.

Briefly . . .

Finland started its two-day general election. Page 2

Sasebo, Japan: Left and Right groups staged noisy, peaceful rival demonstrations on the arrival of the U.S. nuclear-power carrier Enterprise.

Bolivia: Floods killed at least 35 and injured hundreds.

BUSINESS

German metal pay talks collapse

- **WEST GERMAN** metal industry faces a possible strike by its 4m workers following the collapse of pay negotiations for 680,000 workers in Bavaria, which were expected to set the pace for settlement.
- **ECUADOR** has devalued its sucre from 33 to the dollar to 42, and will continue to cut the rate by four centavos a working day to reach about 50 sucres to the dollar by the end of the year. Interest rates have gone up slightly, new import and export regulations brought in, and some fuel prices have been increased. Page 16
- **UK TRADE** Minister Peter Rees is to press the U.S. to change its system of applying foreign policy to export controls. Page 4
- **CHINA-U.S.** textile talks in Peking ended in disarray. Page 4
- **WORLD SHIPPING** markets continued their modest revival. Page 4
- **PAKISTAN** set a production target of 5.2m bales of raw cotton for 1983-84, 7.66 per cent up on actual 1982-83 production.
- **MEXICO** is seeking continued preferential access to the U.S. market for its beer, which is threatened because of the heavy tariffs it imposes on U.S. beer. Page 4
- **JAPAN'S** February coal imports, 4.9m tonnes, were 4.1 per cent down on February 1982.
- **WORLD AGRICULTURE** is the subject of today's special Statistical Analysis feature. Page 6
- **ARAB** countries meet in Amman today to set up a drug producers' association.
- **SOVIET UNION** is believed to have signed an agreement to build Afghanistan's first railway. Page 16
- **THE** new Basle Concordat, the main formal agreement on international banking, should clarify banks' responsibilities for solvency and liquidity. Page 17
- **D-MARK** Bond market prices rose last week by only ½ point in moderate turnover, despite the Christian Democrats' election win, a cut in official Bundesbank interest rates, and a strengthening of the currency. Eurodollar, Swiss franc and U.S. domestic markets were also sluggish. Page 17
- **U.S. STEEL** has signed an agreement to help rebuild Guyana's troubled bauxite business.
- **AUSTIN ROVER**, the BL car division, is expected to buy gearboxes from Japan and West Germany for the XX, the executive car to be produced in co-operation with Honda. Page 16; Editorial comment, Page 14
- **SWIRE PROPERTIES** reported 1982 profits 61.4 per cent down at HK$316m ($47.7m). International City Holdings, floated last April, reported profits of HK$119.6m ($18m) for 1982, compared with a prospectus forecast of HK$500m.
- **FRIENDS' PROVIDENT** Life, a UK life assurance company, is paying Carma of Edmonton C$15.6m ($12.75m) for its 69 per cent holding in Seaboard Life Insurance of Vancouver, and will offer the same C$41 a share publicly for the rest. Page 19
- **POMOR NORDIC** of Norway has opened an Arctic trade route with Russia for the first time for nearly 70 years, with a Norwegian-salami-for-Soviet-timber exchange.
- **HUGHES STEEL**, U.S. oil and gas drilling bits producer, expects a first-quarter 1983 loss, but says it would have broken even but for Venezuelan devaluation. Page 18
- **UDDEHOLM**, Swedish special steels group, lost SKr 248m ($33m) in 1982, an improvement on the 1981 loss of SKr 81m.
- **KNP**, the Dutch paper group, has returned a 1982 profit of Fl 8.5m ($3.2m), following a 1981 loss of Fl 6.2m, and is to pay its first dividend in nine years. Page 18

French participation still in doubt as ministers meet again today

EMS currencies float as realignment talks falter

BY JOHN WYLES IN BRUSSELS

The French Government announced last night that it was preparing major measures in support of the franc, after yesterday's inconclusive meeting in Brussels of Finance Ministers representing the eight member countries of the European Monetary System (EMS).

A government spokesman also indicated that the Cabinet reshuffle, widely expected to be announced last night, had been put off for another 2 days.

They will resume negotiations this morning with more hope than certainty that the EMS will survive intact the greatest crisis in its four year history. The French franc's continued participation in the exchange rate arrangement was still in doubt last night because of uncertainty over whether M Jacques Delors, the French Finance Minister, would survive President Mitterrand's expected Government reshuffle.

Events in the foreign exchange markets could also be a crucial influence on the course of today's negotiations. The EMS includes all EEC currencies except sterling and the drachma.

There will be no official fixing of EMS exchange rates by central bankers, who are also relieved of their obligations under the system to intervene to defend existing parities.

In a move to confuse speculators, however, Herr Otto Pohl, governor of the West German Bundesbank, said last night the central banks would still be free to intervene if they chose to do so.

Asked if currency rates determined by the markets today could influence any possible realignment, he replied cryptically: "Let's wait and see how the markets react and then come to some conclusions."

Any agreement today is likely to be on the basis of a 7–8 per cent devaluation of the French franc against the D-Mark. This is believed to be the essential element of a compromise proposal for a general realignment tabled yesterday by Herr Gerhard Stoltenberg, the West German Finance Minister who, as chairman, called the meeting.

His plan went a long way towards satisfying M Delors' eventual demand for a larger revaluation of the mark against its ECU central rate than any franc devaluation.

In addition M Delors insisted on the need for changes in other parities, apparently to spike charges by the opposition in France that the effect of Government economic mismanagement on the franc is the only real problem in the EMS.

One unofficial and unconfirmed account of Herr Stoltenberg's proposal suggests a 5 per cent revaluation of the mark and a 2.7 per cent devaluation of the French franc. The Dutch guilder, which traditionally follows the D-Mark, would be revalued by 4 per cent and the Belgian franc by 1 per cent since Belgium is keen to minimise its devaluation against the D-Mark.

In addition, Italy would devalue by 4 per cent and, for the first time in any EMS realignment, Ireland would take the punt down by 3 per cent. The Danish krone would be unchanged.

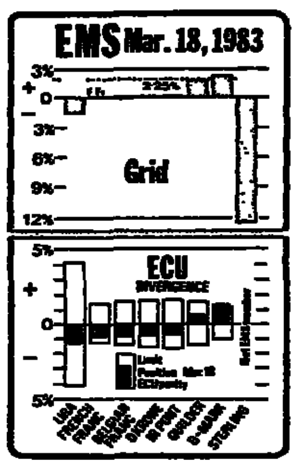
Some delegations suggested that M Delors was the only real obstacle to a realignment along these lines while others claimed there were wider reservations embracing both the Netherlands and Belgium. Most believed, however, that an agreement could have been reached if M Delors had not been robbed of room for negotiating manœuvre by the atmosphere of political crisis and uncertainty in Paris.

Although a strong believer in

Continued on Page 16

Editorial comment, Page 14

The chart (right) shows the two constraints on European Monetary System exchange rates. The lower panel gives each currency's divergence from its central rate against the European Currency Unit (Ecu), which is a basket of currencies including the EMS members and sterling. The D-Mark is alone in having breached its (upper) divergence limit, a fact which has been used to argue for a unilateral revaluation of the D-Mark. However, this would increase the chances of weak currencies, such as the French franc, breaking through their lower divergence limits. The upper panel, based on the system's weakest currency, defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent.



Paris plans new support for franc

BY DAVID HOUSEGO IN PARIS

FRANCE took an important step last night towards reconciling differences with West Germany over a realignment of currencies in the European Monetary System (EMS) when the Governement publicly confirmed that major measures were being prepared to enable a greater convergence of economic policies.

After twice meeting President Mitterrand on his return from Brussels M Jacques Delors, the Finance Minister, said he was preparing "economic and social measures to improve France's economic performance and to reduce to a significant extent the external trade deficit."

The statement followed earlier declarations at the weekend by both M Delors and M Pierre Mauroy, the Prime Minster, that the Government intended to bring down inflation from 10 per cent last year to 4–5 per cent in 1984.

The credibility of France's accompanying package of austerity measures is one of the major items in dispute with West Germany which has been insisting that France must follow anti-inflationary policies which will avoid repeated EMS realignments.

At the same time M Delors brushed aside speculation that he would take over from M Mauroy as Prime Minister by saying that this was "not on the agenda." M Mauroy is seen by the Communist Party and Socialists on the Left as the best guarantee that the administration's social and employment objectives are maintained.

At the end of a day of mounting excitement in Paris that President Mitterrand's intended Cabinet reshuffle would take place last night, the Government spokesman implied that it had been put off until Wednesday, when M Mitterrand is to make a major televised address to the nation.

Excitement was built up after M Delors said in Brussels that he had to return to Paris for important events' by the unexpected resignation in the morning of M Michel Jobert, the Minister of External Commerce and a former Foreign Minister who complained that he had been deprived of the means to carry out "a coherent and effective policy," and by the announcement of that the Official Journal, which publishes Government appointments, was standing by for a special edition today.

Continued on Page 16

Fate of Reagan initiative hinges on Hussein talks

BY ROGER MATTHEWS IN LONDON

KING HUSSEIN of Jordan, the U.S. Administration and politically moderate Arab countries are agreed that the fate of President Ronald Reagan's Middle East peace proposals could be sealed within the next few days.

The Jordanian monarch is ready and anxious to announce his agreement in principle to participate in negotiations leading to Palestinian self-determination on the Israeli-occupied West Bank and Gaza.

Whether he will do so depends on talks he is due to have this week in Amman with Mr Yassir Arafat, the chairman of the Palestine Liberation Organisation.

At talks in London yesterday with Mr Philip Habib, the U.S. Middle East negotiator, King Hussein was left in no doubt about Washington's commitment to the peace process. President Reagan is believed ready to act with vigour on the twin issues of an Israeli withdrawal from Lebanon and its settlement-building activity in the occupied territories, if King Hussein will give his agreement in principle to negotiation.

King Hussein said at a London press conference on Saturday: "I believe for many reasons that we do not have much time before formidable obstacles are created in the path of any move towards peace. Within a number of days we will know where we stand."

Mr Arafat yesterday met members of the PLO executive in Tunis. Unless he gives King Hussein the green light to negotiate on the Reagan proposals, which call for Palestinian self-determination to be expressed in association with Jordan, there was little doubt in Washington yesterday that the peace process would collapse.

Although it is admitted in Washington that a statement by King Hussein on his willingness to negotiate would entail some political risk, officials argue that a strong safety net has also been provided. They point out that the King would only have to go to the negotiating table if the U.S. first kept its promises on an Israeli withdrawal from Lebanon and a freeze on new Jewish settlement building on the West Bank.

Some members of Arab delegations who have been in London for talks with the British Government said they believed King Hussein was ready to embrace the Reagan plan if he received the most modest encouragement from Mr Arafat.

They also warned, however, that Mr Arafat's scope for manœuvre was limited, and that his desire for PLO unity far outweighed any trust he might be willing to put in American promises.

British officials are believed to have cautioned King Hussein on Friday about the risks of going too far out on a limb on the Reagan

Continued on Page 16

UK could trigger oil price war

BY CARLA RAPOPORT IN LONDON

AN INTERNATIONAL price war could break out if Britain cuts the price of North Sea crude below $30 a barrel.

According to Middle East Economic Survey (MEES), a Cyprus-based publication with an excellent record for reflecting Saudi opinion, Britain could ensure the stability of the world oil market by holding the North Sea oil price at $30 or more.

Any further cut would be construed by the Organisation of Petroleum Exporting Countries (OPEC) as an "invitation to a price war," said MEES.

British National Oil Corporation (BNOC), the lead trader of North Sea oil, has proposed a $3 cut in North Sea oil to $30.50, back-dated to February 1. This price has yet to be accepted by BNOC's customers and the company is under considerable commercial pressure to drop its prices further.

Only last Monday, Opec reached an unprecedented agreement to cut the price of its reference crude to $29 and limit production to 17.5m barrels a day. The agreement, however, will not be able to stabilise the oil market if Britain reduces its prices below $30 a barrel, according to MEES.

Such a cut would result in a "downward spiral with no discernible floor in the short term – not even the much vaunted $20 a barrel," said MEES.

It continued: "In such warfare all would be hurt, but where low-cost Opec oil would survive, the economics of North Sea oil could be virtually wiped out."

The British Government has consistently argued that it will not interfere with the pressures of the market regarding North Sea prices.

In answer to a question in the House of Commons last week, Mrs Margaret Thatcher, Britain's Prime Minister, said North Sea prices would sooner or later have to follow market forces. The Opec agreement did not constitute a market force, she said.

BNOC is currently considering its pricing policy and is expected to reach a decision by the end of this month. It is understood to be considering a price between $29.50 and $30. Nigeria, which has cut its oil prices from $35.50 to $30, has already said it will match any further cut by Britain cent by cent.

If BNOC does drop the North Sea price below $30, MEES predicted another emergency Opec meeting will be called to agree on a "bigger price cut."

Meanwhile, Iran said yesterday it will inform its oil customers next week about the discount it will give on Opec's new $29 price.

Opec agreed in principle to an Iranian discount because of the costs associated with the continuing war with Iraq.

Zimbabwe close to signing IMF package for standby credit

BY MICHAEL HOLMAN IN HARARE

ZIMBABWE is understood to be close to signing a finance package with the International Monetary Fund worth 356m special drawing rights (SDRs).

Bankers said the arrangement would comprise a SDR 300m standby credit, of which SDR 100m would be drawn immediately and the balance in five quarterly tranches of SDR 40m each. The drawdown would depend on Zimbabwe's meeting its performance criteria in respect of bank credit, the money supply and budget deficit. In addition, Zimbabwe is expected to obtain SDR 56m under the IMF compensatory financing facility.

Zimbabwe's 1982 current-account balance of payments deficit is estimated to have been close to SDR 500m and the country raised substantial short-term loans to finance this. In December, Zimbabwe devalued its currency by 20 per cent and allowed it to float lower in January this year. Since then, it appears to have stabilised at about 3 per cent below its post-devaluation levels.

Last month, increased indirect taxes – on general sales, petrol, drink and tobacco – were imposed as part of a programme to trim the budget deficit. The government is reportedly engaged in a programme to cut public expenditure in the 1983-84 fiscal year, which starts in July.

The need for spending restraint is underlined by the forecast of a 50 per cent rise in government expenditure. In the first half of the financial year, the budget deficit, at 243m Zimbabwe dollars (U.S.$252m) is 34 per cent above the deficit target on recurrent spending for the entire fiscal year.

Balance-of-payments figures for 1982 have still to be published, but trade figures for the 10 months to October last year show a 2.5 per cent fall in exports and an 8.3 per cent rise in imports.

The decline in exports reflected lower earnings from most of the country's traditional overseas markets as a result of the world recession. However, gold exports more than doubled to average Z$12.5m a month.

It seems clear that the Zimbabwe economy faces another very difficult year after what some farmers have described as the worst drought in living memory.

The low level of water supplies suggests that winter wheat output may be halved, causing substantial imports. The country's large maize stockpile, built up in 1981-82, should be adequate to see Zimbabwe through until the next harvest in a year's time, but wheat and vegetable oil imports will add to the strain on the balance of payments in 1983.

Oil is Zimbabwe's main import, and the collapse in world prices will have an important beneficial effect.

Economists believe that last December's 20 per cent devaluation, severe reductions in import allocations, lower levels of state spending, some upturn in demand for mineral exports – notably nickel, copper and gold – and a modest rise in tobacco exports should bring about a major improvement in the balance of payments in the second half of this year.

CONTENTS

OVERSEAS NEWS

Squeeze on projects and consumer goods imports in Libya

IN THE middle of 1981 Libya was the first member of the Organisation of Petroleum Exporting Countries (Opec) to feel the full impact of the oil glut. It is still trying to cope with the consequences of reduced oil revenues, Patrick Cockburn writes.

These were down to about $10bn last year compared with $22.6bn in 1980. Today, prospects for increased oil revenues look equally bleak and the country's development programme, originally scheduled to cost $62.5bn over five years has been drastically cut.

The extent of the cuts is a measure of the exaggerated ambitions created by the rise in oil prices in 1978-79. Even last year's export revenues could only be raised by effectively shaving the price of Libya's crude. Though limited to a quota of 750,000 barrels a day at the Vienna meeting of Opec last March, it was exporting close to 1.8m b/d by the end of the year.

Yet Libya's financial situation is less parlous than that of Nigeria, the other large African producer, Its population is only 3m and its oil is close to European markets.

But in the short term there will be difficulties in meeting its commitments. Non-military expenditure this year is budgeted at about $11bn, a little over expected revenues of $10bn. Arms are estimated to cost about another $4bn, leaving a shortfall of $4bn-$5bn.

Threatening noises by President Ronald Reagan's Administration must ensure that military spending will not be cut. The General People's Congress, in theory the main decision making body in Libya, met last month in Tripoli and decided to obtain the maximum amount of weaponry it could and to set up a Libyan arms industry. The country already has 3,000 tanks.

At the end of last year, reserves were put at $6bn but it is not clear how much of this is in an easily realisable form. Uncertainty in the oil market has made it difficult to arrange barter deals for the sale of oil, though the Soviet Union was getting 150,000 b/d of oil to clear a debt of $1bn-$2bn.

It is the delay in payments by Libya which has made so many suppliers nervous of the country over the past 18 months. By the middle of 1982, diplomats in Tripoli said they believed Libya owed $12bn, $4.6bn of which was due last year. Some of this has now been cleared, but the Export Credits Guarantee Department in Britain is still paying compensation to suppliers at a rate of almost $5m a month.

Within Libya, many big projects are now being delayed or cancelled. These include such major schemes as a vast railway network and the pipeline planned to bring water from Sarir in the interior to the coast. Companies tendering for the $1bn Sirte fertiliser complex are being asked to back their bids with a commitment to finance the project.

But there are many heavy industrial projects like Misurata steel and Zuwara aluminium in which the Government is too far involved to pull out. The allocation in this year's budget for the import of consumer goods is only 60 per cent of the figure for the import of capital goods for light and heavy industry.

The limited budget for consumer goods has caused grumbling, but this is not likely to have much impact. "There are all sorts of stories of discontent, but nothing very much seems to happen. Gadaffi has a strong sense of how far he can go," says one experienced diplomat.

The General People's Congress decided to introduce the 12-hour day and there is likely to be some reduction in the foreign workforce. This numbered close to 400,000 in 1980 out of a total labour force 930,000. Each year the foreign workers repatriate at least $1bn.

A reduced oil price will make Libya's position more difficult. It exports have recently slumped to close to 600,000 b/d from 1.8m b/d in December. This is the result of a dispute over pricing with the oil companies which are still lifting crude. They are also holding off until they find out the new Opec price level.

This puts the pressure on for greater cuts in Libyan imports later in the year. It will also increase the temptation to shave the price further to make Libyan oil competitive with Nigeria and the North Sea.

Shadow cast over EEC summit

BY JOHN WYLES IN BRUSSELS

EUROPEAN Community heads of government gather here today for their first summit meeting of the year under the shadow of a major currency crisis, but nonetheless anxious to make progress on key economic, budgetary and political issues.

The agenda drawn by West German Chancellor Helmut Kohl, who will preside over the day-and-a-half meeting, could be severely disrupted if Finance Ministers fail to agree on a European Monetary System realignment in parallel negotiations which will be taking place only half a mile away.

On the external front, the heads of government are expected to issue a new declaration on the Middle East, stressing that time is running out for a negotiated settlement of the Arab-Israeli confrontaion.

The heads of Government will also be preoccupied with the confrontation with the U.S. over agricultural trade. They will hear a report on last week's talks in Washington between senior Euroepan Commissioners and Administration officials

Their discussion of the economic situation in the EEC will also provide the opportunity to exchange views on the message the Community will take to President Reagan at the world economic summit in Williamsburg at the end of May.

On internal matters, the summit is being seen as an interim affair which is preparing the ground for major decisions at the next meeting in Stuttgart

This will focus on whether and how to add to the Community's dwindling budgetary resources.

Russia and Libya to sign treaty

BY ANTHONY ROBINSON IN MOSCOW

THE SOVIET UNION and Libya agreed in principle over the weekend to conclude a treaty of peace and friendship. The move reflects the two countries' concern over the resurgence of U.S. influence in the Middle East but could also complicate Soviet relations with Egypt and the Kulf states.

The surprise announcement followed a visit to Moscow by Major Abdel Sallam Jalloud, the Libyan Prime Minister and close associate of Col Muammar Gadaffi, the Libyan leader. It

Last year, Soviet-Libyan trade rose sharply to Roubles 1.347bn (£1.2bn) from Roubles 555m (£504m) in 1981, due mainly to large purchases of Soviet arms paid for largely by oil shipments. Some of the latter were shipped to Soviet Black Sea ports for internal consumption, but some was also sold for hard currency to Western customers.

This mutually profitable arms-for-oil trading is expected to continue, although the proposed treaty of peace and friendship is not expected to contain any military clause which would commit the Soviet Union to come to Libyan assistance in case of hostilities between Libya and other states.

The Soviet Union has long fought shy of entering any formal commitment with the highly unpredictable Libyan regime but both countries share a growing resentment at the increase in Washington's influence in the Middle East and at the expulsion of the Palestine Liberation Organisation from Beirut.

N-warheads withdrawal on Nato agenda

By Bridget Bloom, Defence Correspondent in Washington

NATO Defence Ministers meeting in the Algarve, southern Portugal, this week are expected to consider whether the alliance should withdraw unilaterally several hundred nuclear warheads from Europe over the next few years. The 14 ministers are meeting in the Nuclear Planning Group (NPG) for their bi-annual review of Nato's nuclear forces and policies.

They will have before them the interim report of the High Level Group (HLG) of senior defence officials who have been assessing how far the stockpile of some 6,000 nuclear weapons in Europe could be cut without jeopardising the alliance's nuclear deterrence strategy.

The warheads to be withdrawn would be on short-range, so-called battlefield nuclear weapons, which range from nuclear artillery shells to bombs dropped from aircraft.

The HLG's study is descibed by its officials as complex, exhaustive and incomplete. They stress, therefore, that the NPG is very unlikely to decide what action to take before its autumn session.

The question of withdrawing some nuclear warheads is becoming urgent, however, partly because it is linked to Nato's decision to deploy 572 new nuclear missiles in Europe from the end of this year.

When it decided to deploy the new weapons in 1979, the alliance guaranteed that the 464 new cruise and 108 Pershing 2 missiles would not mean a net addition to Nato's nuclear warheads in Europe.

With the talks to limit those intermediate range nuclear forces now stalled in Geneva, deployment of some of the new weapons maybe only 6-9 months away.

However, the alliance is also under pressure from within to rationalise its stockpile of ageing and, many believe politically unusable, battlefield weapons. In a recent report, Nato parliamentarians urged the alliance to withdraw many more than the compensating 572 medium-range warheads.

Unofficial estimates suggest that Nato, with its programme of moderalsation which include replacing some battlefield nuclear weapons with conventional armaments, could withdraw up to 2,000 warheads.

The U.S. and British Governments, the alliance only nuclear weapon powers, described the NPG as a forum in which they consult with and inform their non-nuclear allies on Nato nuclear forces. Only France, which is not intergrated in the military structure, and Iceland are not represented.

The NPG, therefore, is not concerned principally with nuclear arms limitation talks. But, Mr Caspar Weinberger, the U.S. Defence Secretary, is certain to be made aware of European dissatisfaction with the lack of movement at the INF talks in Geneva.

West European governments want the U.S. Administration to try to break the deadlock by putting forward new proposals in Geneva.

They argue that the U.S. zero option—under which the U.S. would not deploy the new missiles in return for removal of some 600 existing Soviet missiles—has no hope of acceptance by the Soviet Union at this stage. They have suggested reduced ceilings of perhaps 300 warheads for each side as an interim solution.

The U.S. Administration is divided on whether the time is yet right for a new offer. While the State Department is said to support the European view, Mr Weinberger is claimed to believe firmly that a new offer should only be made much later in the negotiations.

President Ronald Reagan was reported this weekend to be studying official submissions from the two departments.

Finns start voting in two-day election

HELSINKI — Finns started voting yesterday in a two-day general election that could bring the Conservatives back into the coalition.

The Conservative National Coalition Party has been shut out of government for the past 17 years, partly because of a widespread belief fostered by its opponents that its inclusion could affect delicate relations with the neighbouring Soviet Union.

But the urban-based party, gaining strength as the Finnish population has moved from the countryside to the towns, is now forecast to make the biggest gains and win around 25 per cent of the vote. This will add about ten seats to its 46 in the 200-member parliament.

Pressure for the party's inclusion in government is bound to mount if they reach this figure, political leaders have said.

Moscow has confined itself so far to reporting the state of the parties and saying that Finland's foreign policy of conciliation and co-operation with the Soviet Union is not an issue.

All Finnish political parties have declared their backing for the country's official policy of neutrality and good neighbourly relations, the basis on which Finland maintains a Western-style capitalist democracy while sharing an 800-mile border with the Soviet Union.

The present government, led by Mr Kalevi Sorsa, is a coalition of his own social democrats, the Centrists, Liberals and the Swedish People's Party, commanding 103 parliamentary seats. Most political analysts believe it will endure.

Reuter

Turkish media ban on protest reports

MILITARY authorities have banned local media from reporting a wave of recent protest resignations from Turkish universities and from publishing any unauthorised stories about a controversial Government shake-up of the banking system, Reuter reports from Ankara. In the past few weeks there have been regular reports of resignations by academics upset by the dismissal of about 200 of their colleagues over the past two years in what many of them say is a political purge. Newspapers have also given prominence to Government intervention in the banking sector and have speculated as to which of the country's 40 retail banks might be subject to state intervention.

Right-wing Greek publisher murdered

The publisher of a right-wing daily newspaper in Athens was shot dead in his office on Saturday by an unknown gunman, police said, AP reports from Athens. They said a young man burst into the office of Mr George Athanassiadis, publisher of Urathyni, and fired several shots from a pistol. Mr Athanassiadis had also owned a financial daily, Naftemboriki. Urathyni, which is opposed to the Socialist government, has a circulation of about 50,000.

Tikhonov starts visit to Yugoslavia today

Mr Nikolai Tikhonov, the Soviet Prime Minister, will pay an official visit to Yugoslavia from today until Friday for talks on bilateral and international issues, Reuter reports from Belgrade. His visit will be the first to Yugoslavia by a senior Kremlin leader since Mr Yuri Andropov assumed the leadership of the Soviet Communist Party in November. The Soviet Union is Yugoslavia's number one trading partner. Total trade between the two countries was worth $7bn (£4.7bn) last year.

FINANCIAL TIMES, published daily except Sundays and holidays. U.S. subscription rates $420.00 per annum. Second Class postage paid at New York, N.Y., and at additional mailing centres.

Asean and Community ministers to meet

SUPERPOWER influences on the Kampuchean dispute and trade and investment links between the European Community and the Association of South-East Asian Nations (Asean) will be the main topics when the fourth foreign ministers meeting of the two groups begins in Bangkok on Thursday, AP-DJ reports

The 10 EEC countries have given political support to Asean's call for a withdrawal of Vietnamese troops from Kampuchea and free elections there. Most of them also deny aid to Vietnam because of its aggression in Kampuchea, and Asean ministers will be looking for reaffirmation of this policy.

European sources say the Community is becoming more aware of Asean's economic potential. The group, which includes Malaysia, Indonesia, the Philippines, Singapore and Thailand, had an annual growth rate of 7-10 per cent between 1975-81.

The two groups have tried to promote investment and joint ventures since they made a comprehensive economic agreement in Kuala Lumpur, Malaysia, in March 1980.

Asean officials want European investment to diversify its investment sources. European sources estimate that Japan holds 32 per cent of the total foreign investment in the five Asean countries, the U.S. 16 per cent and the EEC, 14 per cent. By 1980, total foreign investment stood at $20-25bn.

One European offical said: "There is no other region with such possibilities as the Asean market offers for European manufacturers, where European knowhow can be used."

Herr Hans-Dietrich Genscher, West German Foreign Minister, and current president of the EEC Council of Ministers, will chair the two -day meeting jointly with Air Chief Marshall Siddhi Savetsila, Thailand's Foreign Minister.

Officials of the two groups will begin meeting in Bangkok today with some foreign ministers arriving tomorrow.

Officials say the agenda will include discussions on Sino-Soviet rapprochement – which is seen to have a direct bearing on the Kampuchean dispute – the presence of Soviet troops in Afghanistan, and the problem of Indochinese refugees in Asean countries.

Thailand's rulers call early election amid coup speculation

BY JONATHAN SHARP IN BANGKOK

THAILAND'S rulers caught the nation by surprise with an announcement at the weekend that Parliament was being dissolved and general elections would be held on April 18, nearly two months earlier than expected.

A royal decree, countersigned by Prime Minister Prem Tinsulanonda, warned of the dangers of political chaos and violence if the vote was delayed.

The move follows months of wrangling between civilian politicians and Thailand's powerful military establishment over whether the latter should continue enjoying its central and long-standing role in running the nation's affairs Speculation that a coup d'etat—a frequently used means of changing the government in Thailand—might result has been swirling as thickly as the clouds of pollution in Bangkok streets.

The Thai army, led by its ambitious commander-in-chief Gen Arthit Kmlang'em, has been pressing for constitutional changes that would preserve the military's considerable powers. However, last week the Thai Parliament, in an unexpected show of independence, tossed out the proposed amendments and, in effect, threw down a gauntlet to Gen Arthit and his backers.

As the constitution now stands, the military will lose its provileged position on April 21. In addition, a new electoral system will come into force on that date that will favour the larger of Thailand's many civilian political parties.

With the election now set for April 18, the old electoral system will still be in force, and smaller parties and the numerous independents will have a better chance of being elected.

The army, traditionally distrustful of civilian parties, backs this old method, which makes both voters and potential MPs more amenable to military influence.

Thus, the announcement of an early election can be seen as a sop to Gen Arthit by Gen Prem, who himself was army commander-in-chief before becoming Prime Minister almost exactly three years ago.

A Government spokesman confirmed yesterday that the military's other constitutional perquisites, which include being allowed to hold military and senior Government posts simultaneously, will lapse as scheduled on April 21.

But by then a new parliament will have been elected which, the army presumably hopes, will be favourably disposed to following the wishes of the military powerbrokers.

Suspicions that the army had some role in bringing forward the election date were fuelled by the fact that copies of the royal decree announcing the dissolution of parliament were issued to the Press by the army's operations centre several hours before the official statement on radio and television.

Bhutto party official seized

KARACHI — Sardar Farooq Leghari, secretary-general of the opposition Pakistan People's Party (PPP), has been arested at his home in the district of Multan in Punjab province, the Pakistan Press International reported yesterday.

Mr Leghari was arrested for holding a public meeting and making speeches last week against the military regime of President Mohammed Zia-ul Haq. He will be tried by a military court, the agency said.

He served until 1977 as the Speaker of the National Assembly during the Prime Ministership of Mr Zulfikar Ali Bhutto. the chairman of the PPP who was later executed.

Mrs Nusrat Bhutto, widow of Mr Bhutto and current chairman of the party, is abroad for medical treatment. Their daughter, Miss Benazir Bhutto, the acting chairman, is under house arrest in Karachi.

● Units of the Pakistan army in full battledress were called in to quell riots yesterday between rival Shia and Sunni Moslems in Karachi. It was the third day of fierce rioting, eyewitnesses said.

Frenzied mobs burned houses and ransacked shops and a student died in a local hospital, raising the unofficial death toll to nine. More than 150 have been injured.

AP

Students intensify challenge in Assam

By K. K. Sharma in New Delhi

STUDENT AGITATORS in the strife-torn north-eastern Indian state of Assam intensified their challenge to the new state government's authority at the weekend in a fresh wave of violence. At least a dozen people died in bombings, arson and stabbings.

The authorities stepped up the already elaborate security precautions in anticipation of renewed violence by the students today when the first session of the recently-elected state legislature opens in Gauhati.

The students have issued instructions to their followers to try to prevent the legislature from carrying out any official business. There were several explosions in government buildings in Gauhati at the weekend.

The legislature was elected last month after unprecedented violence and communal clashes sparked by student agitation against the elections. More than 3,000 people in the state are known to have been killed. The students are now challenging the validity of the elections in which less than 5 per cent of the electorate were able to vote.

The Congress (I) Party, of Mrs Indira Gandhi, the Indian Prime Minister, won a massive majority in the legislature because the election was boycotted by nearly all the opposition parties and because the students threatened with violence all who took part in the electoral process.

The students have effectively prevented the new government from exercising its authority in Assam, large parts of which have been declared "disturbed" and are being patrolled by the Indian army. Mrs Gandhi has rejected demands to dismiss the state government and has refused to impose direct rule from New Delhi.

The confrontation expected from today will show the extent to which the students control Assam. They have already demonstrated their ability to paralyse the administrative apparatus in the face of a massive security build-up. If they disturb and halt the legislature proceedings, the state government will have been shown to be totally ineffective and steps are being taken to prevent this from happening.

Nicaragua Right steps up attacks

BY TIM COONE IN MANAGUA

URGENT MEETINGS have been held over the weekend by leaders of the governing Sandinista movement, ministers and heads of political parties which support the government, to discuss the intensifying attacks by right-wing guerrilla groups which have penetrated to within 70 kilometres of the capital Managua, within the past two weeks.

The Government is expected to issue a statement today on the difficult military situation.

The most recent attacks, which were close to the town of Matagalpa, seem well organised and co-ordinated. About 30 soldiers and Government personnel have been killed since the beginning of March, as well as peasant farmers.

Much of the fighting between the Sandinista forces and guerrillas backed by the U.S. and Honduras had been taking place close to the Honduran frontier. Many guerrilla units are now believed to have left their bases in Honduras and established themselves deeply inside Nicaraguan territory. Sr Rafael Córdova, a member of the ruling junta, suggested that counter-revolutionary guerrillas had been parachuted into Matagalpa.

Sr Lenin Cerna, the head of Nicaraguan state security, said that at least 2,000 armed counter-revolutionaries are now operating inside the country in units of 100 to 200 each. The backbone of their forces consists of former members of the disbanded National Guard, which earned notoriety under the regime of the late President Anastasio Somoza, whom the Sandinistas overthrew, for its violence and brutality

Since 1979, when the Sandinistas came to power, guardsmen have been regrouping and re-equipping, most notably in Honduras and in the southern U.S., with the intention to topple the Nicaraguan Government.

Zimbabwe farmers seek protection

BY MICHAEL HOLMAN IN HARARE

POLICE and army units were searching the Bulawayo area of Zimbabwe yesterday for the killers of an elderly white farming couple and their grandchildren, as well as the abductors of an accountant.

The killings will further damage the morale of the already disheartened 800 white farmers in Matabeleland. The Commercial Farmers Union president, Mr Jim Sinclair, said he was seeking urgent meetings with army authorities to discuss the need for greater farm security.

Wednesday's kidnapping of Mr Robert Dyer-Smith and the Friday night murders of Mr and Mrs Eric Stratford and their two young grand-daughters are a stark illustration of the Government's failure to control anti-Government activity in the province despite the recent military operations.

Both incidents took place within a few miles of Bulawayo's city boundary. Mr Dyer-Smith's abductors demanded the release of two senior Zapu opposition members currently on trial for treason.

A note left at the scene said that unless intelligence chief Dumiso Dabengwa and former Zapu army commander Lookout Masuku were set free by the end of the month, Mr Dyer-Smith and six foreign tourists kidnapped in mid-1982 would be killed.

Meanwhile, Mr Callistus Ndhlovu, a Zapu minister in the Mugabe Cabinet responsible for construction, was due in London yesterday for talks with UK industry officials.

The visit caused speculation in Harare that Mr Ndhlovu may be carrying a message from the Government for the Zapu opposition leader, Mr Joshua Nkomo, now in London after fleeing to Botswana

It is far from clear, however, what message, if any, Mr Ndhlovu might be carrying.

Israeli troops accused of indiscriminate firing

BEIRUT. – The Marine commander of U.S. peacekeeping troops in Lebanon accused the Israeli Army yesterday of endangering civilians and U.S. Marines through a "gross lack of fire discipline ... and very poor tactics."

Lebanese officials said that at least five civilians have been killed by indiscriminate Israeli fire.

Col James M. Mead also said that the "leading theory" about attacks on the multinational force here recently was that pro-Iranian Lebanese factions were responsible.

Col Mead said that Israeli convoys and patrols on the Old Sidon road, on the edge of the Marine area at the international airport, engaged in what he called "reconnaissance by fire" – indiscriminate firing into areas along the road to discourage ambushes. He said this was apparently one of the reasons the Israelis were trying to keep the Marines from patrolling in the area.

"Initially, Marines could not go across the Sidon Road because they were concerned for our safety," Col Mead said.

Col Mead said that for over two months, they come down the Sidon Highway and without having been fired upon, they just fire great numbers of rounds to the east of Sidon highway.

Mr Hisham Shaar, head of Lebanon's internal security force until the beginning of March, said last month five civilians had been killed by the Israeli firing. A spokesman for the force said yesterday that he could give no exact casuality tolls, "but I can confirm that there have been casualties, some were wounded and others were killed.

"During the sweeps, particularly south of Beirut and in Sidon and Tyre, the Israelis have been very tense and undisciplined. They shoot heavily at random to scare people away, but unfortunately always manage to hit someone with their fire," the spokesman said.

Col Mead said the Lebanese army was questioning one suspect "they are very interested in" concerning last Wednesday's grenade attack on a marine patrol in which five marines were slightly injured.

AP

WORLD TRADE NEWS

Rees for talks on U.S. export controls

BY PAUL CHEESERIGHT, WORLD TRADE EDITOR

BRITISH PRESSURE on the U.S. to change its system of foreign policy on export controls intensifies this week when Mr Peter Rees, the Minister for Trade, visits Washington for talks with senior Reagan Administration and congressional leaders.

Mr Rees will be urging changes to the Export Administration Act 1979. This law, which expires in September but will doubtless be replaced with another, provides the authority for the U.S. Government to impose export embargoes.

It was used during the bitter dispute between the U.S. and West European nations last year, when the Reagan Administration sought to prevent the flow of U.S. technology and equipment to the controversial Siberia-West Europe pipeline.

The British objection is not related to the ability of the U.S. Government to impose its law on U.S.-domiciled companies. Rather, it is directed at the regulations accompanying the Act that seek to exten U.S. controls over the subsidiaries overseas of U.S. corporations and the re-export of American goods.

At the root of the British complaint against the Reagan Administration's use of foreign policy export controls is resentment against what Whitehall sees as an attack on UK sovereignty.

Mr Rees will arrive in Washington as congressional committees continue hearings on the shape of the law to replace the Export Administration Act. But neither Congress nor the Administration have so far defined their positions.

The debate in the U.S. so far has embraced not only lawyers and the business community but also foreign policy strategists. The Act has been used against the Soviet Union. Changes to it are thus caught up in wider arguments about the stance the U.S. should adopt towards the East Bloc.

The U.S. National Association of Manufacturers is concerned about the retroactive application of the Act, cutting across bona fide contracts, and it fears for the U.S. reputation as a reliable supplier.

Lawyers try to resolve beer row

By Nancy Dunne in Washington

ATTORNEYS FOR Mexico's National Association of Beer Manufacturers worked feverishly over the weekend to prevent President Reagan's approval of an executive order which would "graduate" Mexican beer from the U.S. Generalised System of Preferences (GSP).

Negotiations broke down on Friday after Mexican officials refused a U.S. offer to continue to allow their brew duty-free access into the U.S. in exchange for a Mexican agreement to permit entry of 800,000 cases of American beer with a 75 per cent tariff.

At present, U.S. beer is virtually banned in Mexico, which is why the U.S. Brewers' Association has sought to have its neighbour's beer removed from the list of GSP products.

Mexican beer takes less than 2 per cent of the U.S. market, but its foreign exchange earnings are important to Mexico's ailing economy. At one point, its attorneys offered to admit 500 dozen cases of U.S. beer, equal to the market share held in the U.S.

William Chislett in Mexico City reports on the fall from boom to near-bankruptcy

Mexico pins its hopes on non-oil exports

MEXICO, which is battling with an acute liquidity crisis, has set itself the target of quadrupling its annual non-oil exports to $20bn by 1988.

Senior trade officials say the target is a matter of economic survival. If it is not achieved the country faces the grim prospect of an even higher and permanent level of unemployment—at present only three of five Mexicans have full-time jobs—and a slim chance of ever reducing the crippling level of foreign indebtedness.

Current debt

With a total current debt of $83bn, Mexico is now in a critical position of dependence on oil exports at a time when oil prices are severely depressed. Oil exports have shot from 15 per cent of total exports in 1976 to 75 per cent last year while non-oil exports have declined in real terms. Interest payments of $10-12bn will eat up most of this year's $13-15bn of oil export revenue earned by Pemex, the state oil concern.

The last Government of Sr Jose Lopez Portillo squandered the country's oil wealth. Instead of using the mounting oil revenues, as was the intention, to build up a strong and labour-intensive non-oil exporting industry, the Government used the money to support an over-valued peso and thereby encouraged massive outflows of capital, sucked in imports of luxury items, kept domestic industry heavily protected and, in effect mortgaged the country through hefty foreign borrowings.

In six years Mexico went from boom to the brink of bankruptcy. Repayments of principal totalling $20bn over the next two years have had to be rescheduled.

The overvalued peso made it not worthwhile for Mexican exporters to compete on international markets. Instead they dedicated themselves to the booming home market.

The domestic market is now in deep recession. Many companies have no alternative but to export if they are to avoid being pushed under by the weight of servicing their dollar debts and falling domestic sales.

The new Government of President Miguel de la Madrid seems determined to learn from Mexico's mistakes and to use the crisis to make the economy export-oriented once and for all.

This year there will be a trade surplus of about $7bn, but not because of any great advances in exports — imports have plummeted.

The peso is now deliberately under valued to make exports competitive and the country a bargain for tourists. The currency fell against the dollar by 82 per cent in the past year.

The level of protectionism will also be gradually reduced to force companies to be more efficient. Currently almost 100 per cent of imports are under the licensing system because of exchange controls.

However, membership of the Geneva-based General Agreement on Tariffs and Trade (Gatt) world trade organisation, is not a priority, although Sr de la Madrid and his Trade Minister, Sr Hector Hernandez, both favoured Mexico joining Gatt when the issue was rejected in 1980.

Breaking rules

At that time the two men were respectively Planning and deputy Trade ministers.

"It does not make sense for us to joint Gatt when it is now in a crisis and its members are breaking the rules," said a senior trade official.

"Gatt is like a golf club," said Dr Ernesto Amtmann, the president of the Mexican Businessmen's Council for International Relations. "We should join it but only when our handicap is good, otherwise we will get smashed."

In the past two months there has been a surge in the export of some goods other than the traditional exports of oil, silver, coffee, cotton and shrimp. Some companies in northern Mexico are shipping to the U.S. truck loads of bricks. Hylsa, the leading private steel mill, is exporting to the Middle East for the first time.

But there are still problems which are hindering non-oil exports.

First the private sector, which accounts for the bulk of these exports, says that the dual exchange rate system, with a controlled rate currently at 107 pesos per dollar and a free rate at almost 150 pesos, is a deterrent to exporting.

Businessmen are having to buy their dollars for imports mainly at the free rate, even for those imports of essential goods which fall within the more favourable controlled rate category. This is because of the dire shortage of dollars in Mexico.

Export earnings also have to be changed in the state banking system at the controlled and not the free rate.

The Government believes that the controlled rate, which is slipping against the dollar by 14 centavos a day, is sufficiently attractive for exporters.

Exporters, however, are keeping many of their dollars abroad and are not repatriating them—to the detriment of Mexico's already depleted foreign reserves.

Second, Mexico has still not settled the issue of U.S. countervailing duties on its subsidised exports.

The last Government drafted in November a bilateral trade agreement with its U.S. neighbour, under which proof of damage to U.S. economic interests would be needed before duties could be imposed on subsidised Mexican exports. But it decided to leave the matter to the new Government.

Economic damage

As Mexico rejected Gatt membership and also has not signed the latest Gatt code of conduct on subsidies and countervailing duties, the U.S. does not have to prove economic damage—which is hard to do—before imposing duties. Duties have been imposed on Mexican leather goods, ceramic tiles and toy balloons, and the two countries are in dispute over shipments of Mexican beer into the U.S.

Mexico has cancelled its programme of tax rebates for exporters and also is going to raise the subsidised rates of interest on its export credits.

But the new Government is reluctant to commit itself in any way to signing the Gatt subsidies code which it would have to consider doing as part of its trade agreement with the U.S.

N-plant 'could boost' UK ties with China

BY ROBERT COTTRELL IN HONG KONG

THE HONG KONG Government says talks held last week on a nuclear power station proposed for Guangdong Province, China, indicated that the station could offer a valuable opportunity to strengthen economic ties between China and the UK, and could be beneficial to the stability and prosperity of Hong Kong."

Another round of talks is to be held in Peking this week. The Hong Kong talks involved representatives of the British Government, led by Mr Gordon Manzie, of the Department of Industry; the Hong Kong Government, led by Mr John Brembridge, Financial Secretary; the Chinese Government, led by Mr Li Peng, First Vice-Minister for Water Conservancy and Electric Power; and Lord Kadoorie, Chairman of China Light and Power, the Hong Kong utility which hopes to build the nuclear plant in joint venture with the Guangdong Power Company.

The Hongkong Government's prepared statement said yesterday that the project involves "complex proposals" and that the week's discussions "covered a number of aspects . . . including finance and the provision of electricity from the power station to Hongkong."

Hongkong is expected to buy the majority of power generated by the Guangdong plant, yielding the foreign exchange which will be needed to service financing costs.

The statement's reference to "economic ties between China and the UK" may be interpreted as encouraging for British hopes that its General Electric Company will secure major contracts associated with the plant. "Stability and prosperity" is the phrase usually used by officials of British and Chinese Governments to allude to the still unresolved question of Hongkong's future. Britain's lease over most of Hongkong expires in 1997.

JAL orders stretched Jumbo jets

By Michael Donne, Aerospace Correspondent

JAPAN AIR LINES (JAL) has placed an order for two of the new Boeing "stretched upper deck" models of the 747 Jumbo jet airliner, worth in all $199m, including spares and support equipment.

The aircraft, for delivery next November, will be used on routes from Tokyo to San Francisco and Los Angeles. They bring total JAL purchases of Boeing 747s to 47 aircraft, making the airline the biggest single buyer of Jumbo jets.

Total sales of all versions of the 747 now amount to 597 aircraft, of which 568 have been delivered.

SHIPPING REPORT

Modest revival gains momentum

BY ANDREW FISHER, SHIPPING CORRESPONDENT

THE MODEST revival in shipping markets gained further impetus last week as falling oil prices encouraged more interest on the tanker market and dry cargo rates continued to move slowly ahead.

While rates are still low after the steady collapse of the past two years, the early months of 1983 have seen a distinct lightening of the gloom surrounding the industry.

On the dry cargo side, Denholm Coates reported that the week ended on a happier note, with most rates higher. The grain rate from the U.S. gulf to Japan is believed, on a single-voyage basis, to have reached $19.75 per ton and may move into the low $20s.

The market on the Great Lakes is also seeing more action. Ships of 27,000 tonnes are obtaining $4,500 a day, which is $500 more than the week before. Limited signs of recovery are seen, too, on the long-depressed Far East markets for all sizes.

Denholm, however, sounded a warning note which is at the back of most minds in the industry. "One worry that we have is the breakout from lay-up, which many ships appear to be doing. This is bound to counter-balance the modest recovery of rates in the Atlantic."

After long uncertainty about oil prices, the tanker market was still beset by some confusion as to where these would finally settle, now that producers have agreed cuts and quotas. "It has to be decided whether the market feels that the new price levels are low enough, or whether buyers will still hold off, awaiting further reductions," said E. A. Gibson Shipbrokers.

There was a feeling that conditions were somewhat better, it added, but the tonnage surplus in the Gulf was still huge, especially for big tankers.

Galbraith Wrightson reported that a steady amount of cargo had been lifted from the Iranian terminal of Kharg Island in the past few weeks. Confrontation with Iraq in this sensitive area now seemed less likely, it noted, "and one can, therefore, expect Iranian crude to flood on to the markets."

U.S.-China negotiations on textiles end in disarray

BY MARK BAKER IN PEKING

CHINA AND the U.S. have failed to settle their bitter row over textile quotas, despite another week of negotiations.

The U.S. negotiating team left Peking last week after issuing a statement claiming that progress had been made and that a settlement was nearer.

But a curt item from the official New China news agency described the fifth round of talks as "fruitless."

The two countries have been at odds for several months over U.S. moves to impose tough new import quotas on about 20 categories of textiles

After the failure of the last round of talks, in mid-January, the U.S. imposed unilateral restrictions on various Chinese textiles. China retaliated by banning new purchases of U.S. cotton, chemical fibres and soyabeans.

There have been fears that, if no agreement can be reached, China may cut its imports of grain, provoking a far more serious trade dispute.

Before leaving Peking, the chief U.S. negotiator, Mr Peter Murphy, issued a statement saying: "Progress was made throughout the week and negotiations were conducted in a positive atmosphere.

The brief New China news agency item said: "The Chinese side adopted a flexible attitude to help the negotiations. However, the U.S. side made no corresponding response."

World Economic Indicators

FOREIGN EXCHANGE RESERVES (U.S.$m)

	Jan. '83	Dec. '82	Nov. '82	Jan. '82
U.S.	9,490	10,204	10,744	9,534
UK	8,158	9,674	10,615	12,585
W. Germany	40,643	39,620	38,637	37,461
France	17,569	14,594	11,454	18,295
Japan	19,497	19,172	19,149	24,579
Italy	13,800	12,629	11,799	17,790
Netherlands	9,430	8,662	7,769	7,654
Belgium	3,219	2,824	3,116	3,264

Source: IMF

هكذا صد الأصل

Announcing a £1 billion training scheme to help put British business back on its feet.

Bewildered, battered and bloodied, the British business man and woman deserve something more than yet another patch-and-mend temporary stop-gap remedy.

We need a basic reconstruction of the way industry operates–especially training.

The new Youth Training Scheme is a vital foundation for that task.

It is a carefully planned, practical and permanent scheme to ensure that we create a work force for the future.

A work force capable of coping with the basic needs of every employer.

Here's how it works. All 16 year old school-leavers qualify as do some others. They will all get 12 months of training and practical experience.

We will provide grants for the trainees you take on. (Companies that normally take on school-leavers each year get an extra incentive. When you take on more than your usual quota, we will provide a grant to cover both your usual quota and the extra trainees.)

Of course, you'll want more details before committing your company to the scheme. That's what the coupon and the phone number are for.

But one thing can be spelled out now. Without your help, we can't run the scheme.

With it, we can create the trained, competent young people to give this country the injection of energy, talent and ability it so sorely needs and which you have been looking for.

We have the budget to make the new Youth Training Scheme work – if you have the will. You need to do it today. Before you're knocked flat on your back.

For further information simply dial 100 and ask for "Freefone Moorfoot." Mon–Fri 8.30 am – 6.00 pm or fill in the coupon.

To: Youth Training Scheme, Room E721, Manpower Services Commission, FREEPOST, Sheffield S1 4BR. No stamp needed.

Name..

Address..

....

....

Tel.. FT 7W

Youth Training Scheme

Creating a workforce for the future.

STATISTICAL TRENDS: AGRICULTURE

Agricultural output and trade growing

WHILE the contribution of agriculture over the past two decades has declined overall in its contribution to gross domestic product, output and trade volumes have on the whole grown relatively consistently. Employment in the sector has declined with improvements in farming efficiency and techniques, and also because other sectors often provide better monetary returns.

Self-sufficiency

For developing countries, in particular, the pursuit of the agricultural objectives of a balance of self-sufficiency and of a provision of a source of cash for financing, is often constrained by the vagaries of weather, lack of finance or aid for the education in and modernisation of farming methods, high interest rates and adverse exchange rate or commodity price movements.

Continuing high production of, for example, wheat, beef, lamb and dairy produce during the world recession has caused a drop in prices and therefore farming incomes.

High interest rates have no helped since many farmers rely heavily on bank loans to tide them over between harvests.

For these reasons, revenues of even the most efficient producers have been undermined. Around the world, the number of farm failures has been rising and the farmers' plight is having a knock-on effect on other sectors, with less fertilizer being used and reduced purchases of farm equipment.

International trade has become more restricted with the pursuit of policies designed to protect each country's or groups of countries' domestic market.

At the same time, farmers may be encouraged by support measures such as subsidies to produce more than can be consumed at home, resulting in increasing overproduction and stocks, especially in years with bumper harvests like recent ones, for a relatively static world market.

Harvest

Although countries like Australia, which has been badly hit by the misfortunes of the weather, and the Soviet Union experienced a poor harvest year, the EEC on the other hand had a good summer in 1982. The EEC Common Agricultural Policy (CAP) guarantees the prices farmers are paid for their produce with surpluses being exported at subsidised prices—a source of friction with the U.S., New Zealand and Australia.

While the EEC share of world trade has risen sharply in recent years, the combined effect last year of good harvests and the CAP, is even larger surpluses to be disposed of on the world market.

At the same time, however, the EEC as a whole has a considerable farm trade deficit, being the world's biggest importer of agricultural products, especially from developing countries.

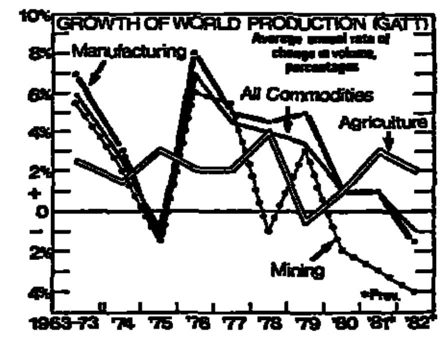
Commentary by Our Economics Staff; data analysis by Financial Times Statistics Unit; charts and graphs by Financial Times Charts Department.

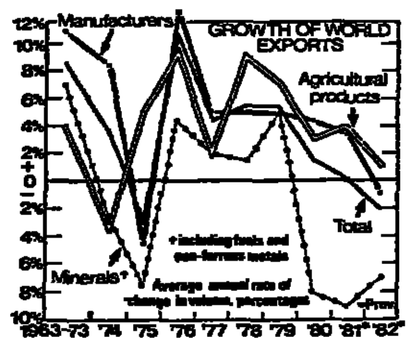
CONTRIBUTION TO GDP BY SECTOR
% in 1960 and 1980

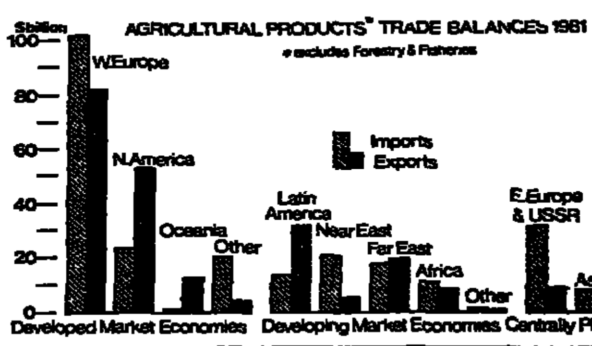
Economies	Agriculture*		Industry		Services	
Low-income	(50)	36	(18)	35	(32)	29
China and India	(50)†	33	(20)†	39	(30)†	28
Other low-income	(49)	45	(12)	17	(39)	38
Middle-income	(24)	15	(30)	40	(46)	45
Oil exporters	(28)	14	(24)	43	(48)	43
Oil importers	(23)	15	(32)	37	(45)	48
High-income						
Oil exporters	(na)	1	(na)	77	(na)	22
Industrial						
Market	(6)	4	(40)	37	(54)	62
Non market‡	(21)	15	(62)	63	(17)	22

* Comprising agriculture, forestry, hunting and fishing. † India only. ‡ Based on Net Material Product. na Not available.
Source: World Development Report 1982—World Bank

Production and Trade





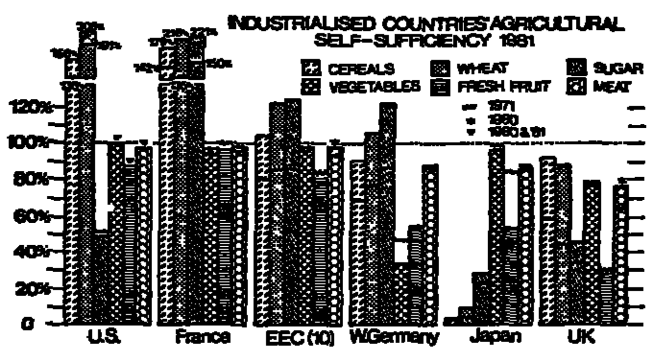


WORLD PROD. TRADED* (in %)
Based on average of 78, 79 & 80

Wheat	16.7
Maize	17.5
Soya	30.6
Wine	7.5
Sugar	25.1
Milk powder skimmed and whole	28.7
Butter	10.7
Cheese	6.0
Beef and veal†	5.0
Pigmeat†	1.0
Poultry meat	3.6

* Excluding intra-EEC trade and processed products. † Excluding salted meat for trade.
Source: FAO and The Agricultural Situation in the European Community 1982

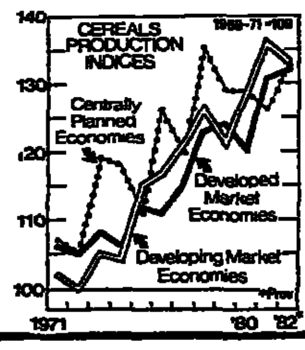
Cereals



CEREALS PRODUCTION
(m tonnes)
1982 est.

Econ. gps.	Dev'd. mkt.	Dev'ng. mkt.	Cent. planned
Total	607.2	490.7	577.9
Wheat	188.5	105.6	174.6
Rice, paddy	22.8	213.9	172.1
Maize	259.1	91.4	97.6
Barley	80.6	17.2	68.3

Source: FAO Monthly Bulletin of Statistics



CEREALS YIELDS

	1969-71 ave.	1981	1982
Harvest area m hect.			
Dev'd. econs.	147.0	174.2	[illegible]
Dev'ng. econs.	291.5	316.9	322.1
Cent. planned	243.8	248.5	[illegible]
Yield kg/hect.			
Dev'd. econs.	2,875	3,482	[illegible]
Dev'ng. econs.	1,244	1,577	1,523
Cent. planned	1,832	2,189	2,330

Source: FAO Monthly Bulletin of Statistics Dec. '82

CEREALS
Estimated carry-over stocks

	m tonnes World	Dev'd.	Dev'p ing	World as % of consump.
1976	187	101	87	14.3
1977	245	147	98	18.0
1978	239	146	93	16.6
1979	273	177	96	18.9
1980	255	157	99	17.6
1981	231	134	98	15.8
1982	278	179	99	18.6

Source: FAO Monthly Bulletin of Statistics Dec. '82

Crops

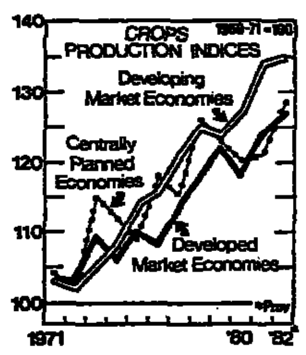
CROP PRODUCTION
m tonnes—1982 estimates

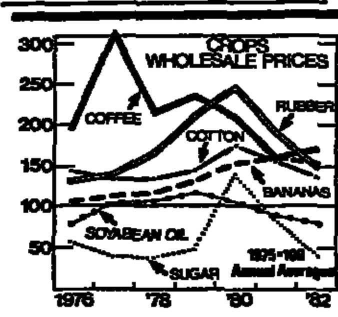
Econ gps.	Dev'd. mkt.	Dev'ng mkt.	Cent. planned
Root crops	74.5	196.3	290.3
Potatoes	71.5	33.7	157.2
Total pulses	4.0	26.0	15.2
Veg & melons	98.0	132.2	135.5
Fruits	104.9	151.0	40.2
Grapes	43.6	14.0	11.0
Citrus fruit	24.1	27.7	1.6
Bananas	0.8	39.1	1.4
Apples	17.6	5.5	13.7

Source: FAO Monthly Bulletin of Statistics

1,000 tonnes—1982 estimates

	Dev'd. mkt.	Dev'ng mkt.	Cent. planned
Total nuts	1,707	1,502	551
Oil crops (oil equiv.)	18,943	26,376	11,775
Sugar, raw	29,319	53,601	16,669
Cocoa beans	—	1,669	—
Coffee green	1	4,987	22
Tea	111	1,209	540
Veg. fibres	3,267	9,569	8,327
Cotton lint	3,019	5,622	6,121
Jute	1	2,537	1,390
Tobacco	1,540	2,120	2,005
Natural rubber	—	3,579	196





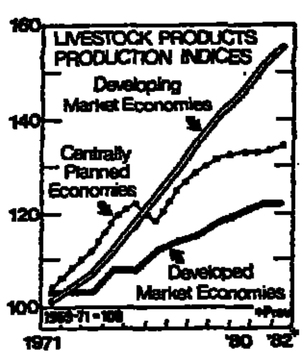
1982 average prices: Bananas 17 U.S. cents/pound; coffee 125 U.S. cents/pound; cotton 72.51 U.S. cents/pound; rubber 45.28 U.S. cents/pound; Soyabean oil $447.3/pound; Sugar 8.41 U.S. cents/pound.

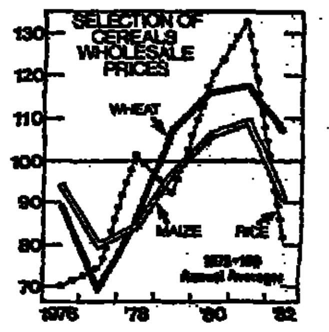
Livestock

LIVESTOCK PRODUCTION
1,000 tonnes—1982 estimates

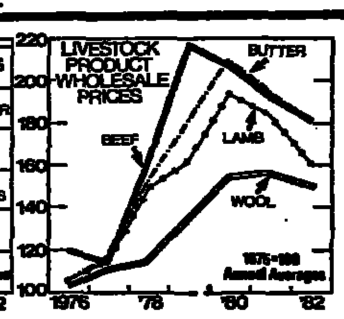
Econ. gps.	Dev'd mkt.	Dev'ng. mkt.	Cent. planned
Total meat	63,776	29,135	49,971
Total milk	237,314	105,098	136,683
Hens eggs	12,543	6,129	11,098
Wool greasy	1,387	654	768

Source: FAO Monthly Bulletin of Statistics





1982 average prices: Wheat $4.36/bushel; maize $2.75/bushel; rice $293.21/metric tonne.



1982 average prices: Beef 108.76 U.S. cents/pound; butter 130.50 U.S. cents/pound; lamb 108.63 U.S. cents/pound; wool 576.62 U.S. cents/kg.

Employment

AGRICULTURAL LABOUR FORCE

	% in agriculture of economically active pop. 1970	1981	millions 1981	Total pop. millions 1981
Dev'd. M.E.	12.9	8.1	28.6	797.4
N. America	4.1	2.3	2.7	254.3
W. Europe	15.4	10.1	16.0	373.7
Oceania	8.7	6.2	0.5	17.8
Other	21.0	12.9	9.4	151.7
Dev'ing. M.E.	65.2	57.9	463.8	2,245.9
Africa	75.6	68.4	102.2	389.2
Lat. America	40.8	33.3	39.2	372.6
Near East	61.2	52.3	35.2	217.9
Far East	68.3	61.4	285.5	1,260.9
Other	76.4	71.3	1.7	5.3
Cent. planned	56.8	48.1	336.6	1,470.1
Asian CPE	68.1	59.3	299.3	1,089.6
E. Eur. & USSR	28.7	19.2	37.3	380.6

Source: FAO 1981 Production Yearbook

Funding

OFFICIAL ASSISTANCE (COMMITMENTS) TO AGRICULTURE
U.S.$m, constant 1979 prices

	1973	1978	1979	1980
Official Dev't. Assistance (ODA)				
DAC*	1,594	3,633	4,304	3,773
Multilateral agencies	1,533	2,761	2,503	2,969
Opec (bilat & multilat.)	69	307	243	179
Total ODA	3,196	6,701	7,050	6,921
% change			+5	−2
Other official flows (OOF)				
Multilateral agencies	902	3,275	2,319	2,621
DAC*	351	403	329	222
Opec (bilat. & multilat.)	63	49	99	48
Total OOF	1,316	3,727	2,747	2,891
% change			−26	+5
Total (all donors)	4,512	10,428	9,797	9,812
% change			−6	—

* Development assistance committee of OECD.
Source: World Development Report 1982, World Bank

GOVERNMENT FUNDING of R & D in agriculture

	% of total gvt. fdg.	% of GDP (x 100)
Belgium 1981	4.6	2.7
Finland 1981	11.8	6.7
France 1980	3.9	4.3
Germany 1980	1.9	2.3
Italy 1980	4.1	1.9
Netherlands 1981	7.3	7.1
Norway 1981	9.6	7.4
Sweden 1981-82	2.8	2.3
UK 1981-82	4.1	4.5
U.S.* 1981	2.1*	2.7*

* Excludes all or most capital expenditure.
Source: OECD Science Resources Newsletter

UK NEWS

MPs likely to challenge reshuffle at TV station

BY RAYMOND SNODDY

MR JONATHAN AITKEN yesterday defended his appointment as chief executive of TV-am, the troubled breakfast television station, saying it was an interim measure in exceptional circumstances.

"I entirely agree with those saying my appointment as chief executive should be a temporary one," Mr Aitken, Conservative MP for Thanet East, said in his office at the TV-am studios in North London. On Friday Mr Peter Jay resigned as chairman and chief executive and was replaced by Mr Aitken and Lord Marsh, who becomes part-time chairman.

Labour MPs are likely to raise in the House of Commons the issue of the appointment of an active Conservative politician at a politically sensitive time to head a television channel.

But yesterday Mr Aitken said the alternative to his appointment would have been leaving a dangerous vacuum of leadership at TV-am while the search for a new chief executive takes place.

Mr Aitken argued that it had been essential to appoint quickly someone with a background in business management and television programme-making who also had the confidence of the shareholders and who could win quickly the confidence of presenters and other staff.

He said he believed that without such an appointment TV-am "could easily have slid into a dangerous period of drift and indecision." This could have caused a collapse of business confidence which could quickly have threatened the future of the company and the employees.

The Independent Broadcasting Authority, which supervises the top appointments in commercial television, said Mr Aitken's appointment had been accepted because of the exceptional circumstances.

It said it wanted to see speedy progress towards the appointment of a permanent chief executive at TV-am and wanted it in weeks rather than months.

Mr Aitken said reports suggesting there were plans to dismiss any of the "famous five" presenters – David Frost, Anna Ford, Robert Kee, Michael Parkinson and Angela Rippon – were "complete nonsense." Neither presenters nor programme makers would be dismissed. There might, however, be some redeployment.

He emphasised that he had no immediate plans for major change – a period of stability was necessary after last week's turmoil.

But his twin aims after talking to staff would be to move TV-am towards being a more popular programme and getting greater control over finances. Mr Aitken said he agreed with the view of some of the staff that the programmes had been too "middle class, middle-aged and middle minded" and this would change.

Advertising revenue is believed to be running above £1m a month despite labour problems at the channel and large discounts caused by disappointing viewing figures.

Mr Aitken represented Aitken Hume Holdings, the largest single shareholder with a 16.7 per cent stake. At one stage, the viewing figures for TV-am dropped to 300,000, while the rival BBC breakfast presentation was attracting 1.6m viewers without "big star" presenters.

The decision to make changes was taken at a meeting of shareholders towards the end of last week in spite of a recent rise in the viewing figures to 400,000.

Mr Aitken said at the weekend that the channel was strong financially and there was no possibility of it running out of money in the short or medium term.

Labour and Alliance neck and neck in new Darlington poll

BY PETER RIDDELL, POLITICAL EDITOR

THE LABOUR and SDP-Liberal Alliance candidates are running neck and neck in the run-up, to Thursday's Darlington by-election, after a weekend in which hundreds of canvassers poured into the town.

Campaign managers of both front runners believe the outcome could be close, within 2,000 votes, in a seat which Labour held with a 1,052 majority in 1979.

A survey by Durham University gave the Alliance's Mr Tony Cook 38.6 per cent of the vote, Labour's Mr Ossie O'Brien 36.5 per cent, and Conservative Mr Michael Fallon 24.6 per cent. This was after eliminating the fifth of voters who are "don't knows."

Interviews were carried out on Thursday from a random sample of 811. The survey needs to be treated carefully as it was not carried out by an established national polling organisation.

Two national polls on Wednesday, by ORC and NOP, put Labour ahead with 37 to 38 per cent, against 35 to 36 per cent for the Alliance, and 26 to 27 per cent for the Tories. A telephone poll put the Tories second behind the Alliance.

The key question now is whether the Alliance can squeeze the Conservative vote on a "stop Labour" appeal, the so-called tactical vote. Comments from canvassers suggest that any squeeze on the Conservative vote is likely to be much less than at Bermondsey where there was a large late switch to the victorious Liberal.

The Labour vote seems to have solidified in the past week, particularly among working-class men, following the party's strong counter-attack involving many of its leaders on visits.

The other main question is whether the widespread press criticism of Mr Cook on policy issues will influence voters. Canvassers say Mr Cook, who is well known as a local TV reporter, has made an impact with working-class women. This is confirmed by the survey.

Alliance campaigners, however, recall that in the past opinion polls have underestimated its support and overestimated Labour's.

Campaigning has intensified with many MPs, full-time organisers and voluntary canvassers in Darlington. The emotions boiled over on Saturday when Labour supporters clashed with the lorries carrying the SDP and Conservative candidates.

The Darlington result is being watched closely at Westminster as a better guide than Bermondsey, where there were several special factors.

A Labour victory would reinforce Mr Michael Foot's leadership, while an Alliance win would sustain its revived momentum for the Cardiff North West by-election, probably in five to six weeks' time.

The Conservatives are, however, watching the outcome apprehensively in view of the Alliance revival. The outcome, together with the May local election results, will affect the timing of the General Election. At present there seems only a slim chance of a June election and opinion among Ministers and MPs has switched to October or next year.

Receivers called in at Cornish tin mine

BY CHARLES BATCHELOR

WHEAL CONCORD, a Cornish tin mine which was reopened in 1980, has gone into receivership after a dispute with Rio Tinto-Zinc over the milling of the mine's output.

The old workings of Wheal Concord were restarted after a 160-year gap during a general revival of the Cornish tin mining industry. About 21,000 tonnes of ore had been mined when it shut down suddenly last November.

Attempts by the owner, Mr Nick Warrell, of Falmouth, to find a buyer for the mine were unsuccessful and receivers were appointed during the weekend.

The company has debts of about £1m to Lloyds, its main bankers, and other creditors, according to Mr Colin Bird of the accountancy firm Price Waterhouse.

"Wheal Concord had a contract to ship all its ore to RTZ's nearby Wheal Jane mine for milling before going on for smelting," Mr Bird said yesterday.

"Last November, Wheal Jane suddenly stopped taking the ore. Wheal Concord came to a grinding halt. The 50 men who were mining came up from their shift and went home without pay. They have not been back to work since."

Mr Warrell confirmed that RTZ had stopped taking the ore, but said he had no idea why the decision had been made.

However, RTZ said yesterday it was prepared to resume the milling of Wheal Concord's output, provided a new contract could be negotiated.

The company declined to comment, but the dispute is understood to hinge on the quality of the ore which was being supplied for milling.

RTZ paid Wheal Concord for the ore on the basis of the assumed tin content. The ore grades declined, however, and, by the time this was discovered, RTZ had paid too much to Wheal Concord. The two sides have been unable to agree a formula for paying this debt.

Wheal Concord's accounts for the 14 months ended November 30, 1981, show spending of about £500,000 on the reopening of the mine and no income. The reserves are £465,000 in the red, although a government grant of £107,000 has been set against this.

Sizewell B safety aspects unresolved

By A Special Correspondent

THE NUCLEAR Installations Inspectorate last week reported to a public inquiry that 82 safety aspects of the proposed Sizewell B power station in Suffolk, on the east coast of England, were still unresolved.

The Inspectorate says these outstanding safety issues must be resolved before it can consider licensing the proposed plant. This will ensure that only small design changes would be necessary at a later stage.

During four days of cross-examination at last week's inquiry, Mr Robert Priddle, an Under-Secretary at the Department of Energy and head of the policy division, was questioned on energy demand forecasts, the future of the coal industry and plutonium exports.

Mr Priddle gave an impressive performance but Mr John Taylor QC, for the Council for the Protection of Rural England, gave him a particularly difficult time on the Government's attitude to energy conservation.

Mr Priddle said the Government wanted to create a free market situation for energy, with a diversity of power souces finding their own price levels. He said this would influence efficiency and conservation among consumers.

The Government did not want to make decisions on behalf of individual consumers, he said.

Britain's power supply relies heavily on the coal industry which provides 83 per cent of total supply compared with nearly 13 per cent from nuclear plants using uranium fuel.

Mr Priddle said the Government believes coal will continue to dominate future supply but does not want to rely too heavily on only one source. He said the Government hopes nuclear supply will increase to 20 per cent or more by the end of the century.

Objectors to the nuclear plant last week argued for an energy policy based broadly on coal with greatly increased investment in conservation and more commitment to the development of renewable sources.

Northumberland County Council was among the objectors cross-examining Mr Priddle.

The council is participating in the Sizewell B inquiry because it is worried that plans by the Central Electricity Generating Board (CEGB) for a nuclear plant at Druridge will harm the local labour-intensive mining industry.

Liverpool dockers turn down redundancy offer

FINANCIAL TIMES REPORTER

DOCKERS in the Port of Liverpool yesterday rejected the port employers' latest voluntary severance offer of a record, tax-free £22,500 for a man with 15 or more years' service. They opted instead for considerably improved pension rights.

An estimated 500 of the 2,350 men on the Liverpool register turned up for the mass meeting, called by the port shop stewards. However, they voted unanimously to support the National Docks and Waterways Committee's rejection of the severance offer

The National Port Employers are seeking another 1,000 voluntary redundancies at overmanned ports around Britain – 325 of them on the Mersey which shed more than 1,000 dockers' jobs last summer.

In the past, the Transport and General Workers Union has left it to individuals to apply for voluntary severance, but this time the union has rejected the scheme at port level and sent it back to the National Dock Labour Board.

The chairman of the Mersey Port TGWU shop stewards, Mr Denis Kelly, said after the meeting: "We advised the men we felt the recession in the industry is bottoming out. More ships are using the Mersey and it would be ill-advised to shed jobs at the present time.

He said the union wanted a man with 25 years' service to receive two-thirds of the average wage, plus a lump sum of £16,000.

At present, a man with 40 years' service gets the top 50 per cent pension and the figure decreases in proportion to years worked at the port.

Rescue for Belleek pottery

GOVERNMENT aid to rescue the financially-troubled Belleek pottery in Northern Ireland is expected to be announced this week. The 125-year-old pottery which employs 200 workers in County Fermanagh, ran into difficulties last year when sales of its fine China products in its main North American markets were hit by the recession.

UK NEWS

Lonrho questions merger policy

By David Churchill

MR Roland "Tiny" Rowland, chief executive of the Lonrho group, is understood to have asked the Government for a clarification of its policy towards retail mergers.

Mr Rowland is believed to have written to Lord Cockfield, the Trade Secretary, asking whether the Government's policy has changed after its recent decision not to refer the various bids for the UDS retail group to the Monopolies and Mergers Commission.

The Lonrho letter comes after restrictions placed on it by the Trade Secretary, preventing it seeking to bid again for the House of Fraser department store group, which includes Harrods.

In December, 1981, the commission ruled that Lonrho's attempted takeover of House of Fraser was against the public interest. Lonrho subsequently gave undertakings to the Trade Secretary that it would not proceed with the bid. This is normal practice, after an adverse ruling by the commission.

However, last autumn, Lonrho approached the Office of Fair Trading – which negotiates the undertakings on behalf of the Trade Secretary – asking to be relieved of this commitment. No such release has so far been granted by the Trade Secretary.

Mr Rowland, however, apparently felt that Lord Cockfield's decision not to refer the rival bids for the UDS group to the commission was a sign that the Government's policy was now in favour of retail mergers. According to one Whitehall official, Mr Rowland's letter "appeared to be a bit tongue in cheek, since the cases are quite different."

It is understood that no official response has so far been made by the Trade Department to Mr Rowland's letter.

A Trade Department spokesman refused to comment on the basis that private letters to the Trade Secretary were not normally discussed in public.

A spokesman for Lonrho also refused to comment, other than to point out that attempts had been made last year to gain a release from its undertakings.

Recession strikes at 1,900 jobs in the shops

Littlewoods just too down-market

BY DAVID CHURCHILL, CONSUMER AFFAIRS CORRESPONDENT

THE DIRECTORS of the Littlewoods Organisation must at times feel relieved that their concern is Britain's largest privately-owned company.

"If they were a public company the shareholders and financial institutions would be baying for their blood by now after their dismal performance of the past few years," said one stockbrokers' analyst whose job it is to follow the fortunes of Littlewoods against the day when it finally does decide to go public.

That day, however, seems a long way off following last week's decision to make 1,900 workers from its retail divisions redundant.

The move coincided with Littlewoods' release of its 1982 preliminary financial figures showing that its retail operations made a £1.1m loss (against a £3.2m profit in 1981) on retail sales up by a tenth.

It was only the pools operation – which turned in £10.9m profits before tax (£1.6m up on 1981) – that spared Littlewoods' blushes. Significantly, none of the 1,900 jobs lost have come from the pools business.

The gloom over Littlewoods' Liverpool-based headquarters this week is a far cry from the late 1970s, when profits and sales were leaping ahead. In 1979, for example, group profits were £41.7m, of which some £33.5m came from the retail operations.

At that time Littlewoods' mail order and chain store activities were seen as glittering jewels in the retail sector, eclipsing even the likes of Marks and Spencer.

What went wrong was that Littlewoods' management failed to come to grips with the recession, which struck with a speed and a severity following the VAT increase in 1979 that left it reeling.

Littlewoods' problem was that its dual retailing activities – mail order and chain stores – were both positioned down-market.

"Littlewoods' traditional customers were always likely to be most susceptible to the effects of the recession," points out another Littlewoods-watcher, Mr John Richards, of stockbrokers Capel-Cure Myers.

Littlewoods sells mainly men's and women's clothes from its High Street stores, as well as home furnishings and some food. The stores are bright and functional, giving the clear impression of being both "cheap and cheerful."

Its main rivals are British Home Stores and Marks and Spencer, although there is some overlap with the F. W. Woolworth stores, which also sell clothes and furnishings.

As disposable incomes were squeezed, so Littlewoods' customers had less to spend in its stores or through the mail order catalogues.

At the same time chain stores such as Marks and Spencer were able to persuade shoppers that they were not as far up-market as had been thought, and some judicious price-cutting reaped enormous dividends for marks in terms of both higher sales and profits.

Marks and Spencer, which has some 250 stores compared with Littlewoods' 110, had a retail turnover in the UK for the year ending March 31, 1982 of just over £2bn and pre-tax profits of £216.4m. Littlewoods' chain stores produced only £453m in sales for 1982 and, although not revealed by Littlewoods, is thought to have been the main cause of the retail trading loss of £1.1m last year.

The comparison with Marks is even more stark on a sales per square foot basis, a traditional yardstick of retail productivity.

Marks is the envy of most retailers with a figure of £303 annual sales per square foot. Littlewoods does not reveal its retail selling space, but trade estimates suggest that its sales per square foot are about half that figure.

Littlewoods' traditional retail strength has been in mail order, where it is number two in terms of market share to Great Universal Stores, but this sector has suffered badly during the recession.

The fierce price-cutting in the past two years as retailers disposed of excess stocks has made mail order catalogue prices look expensive.

At the same time the expansion of credit facilities among retailers has taken the edge off the traditional credit bonus offered by mail order.

Thus Littlewoods' mail order sales advanced by only just over 7 per cent to reach £702m last year.

Littlewoods' trading difficulties were not helped by the boardroom changes of recent years when Sir John Moores first retired in 1977 – handing over to his son, Peter, for three years – and then took over the reins again before finally quitting in March last year.

Sir John was followed as non-executive chairman by Mr John Clements, who is also chairman of the Unigate group. Three other outsiders were introduced in non-executive roles and Mr Tom McAuliffe was recruited last summer from the Argos stores group as managing director

Mr McAuliffe, however, quit after only four months in the job, citing "irreconcilable differences" with the Littlewoods board.

Mr McAuliffe's strategy was for a complete shake-up of the stores operation to create discount store chains similar to the K mart operation in the U.S. The other Littlewoods directors, it is understood, felt that this was going too far down-market.

Consequently, after Mr McAuliffe's departure in early December, the board hired outside management consultants – Littlewoods refuses to name them – to suggest manpower cuts.

BL's computer offshoot on expansion path

BY LORNE BARLING

BL SYSTEMS, the computer systems company that has played a vital role in the modernisation of BL production techniques, is now poised to become an important force in the UK market for manufacturing and information technology.

The company, which has benefited from heavy investment in computer hardware and software by BL, has set itself the target of expansion away from its parent which would make it successful in its own right. The proportion of the company's work outside BL has risen steadily since it was set up by Sir Michael Edwardes in 1979 to bring together the computer-related functions within BL, which are now centralised at BL Systems' Redditch headquarters.

This means that production lines as far afield as Longbridge in Birmingham and Cowley, Oxford, are directly operated from six large mainframe computers at the communications and data centre, which contains £14m worth of computer systems.

An example of profitable return has arisen through BL Systems' computer disaster recovery centre at Preston, Lancashire, where duplicated data and software can be used on another large IBM computer to ensure that car production would not be affected by a fire or any problem at Redditch.

This centre, which has been set up jointly with Atlantic Computer Leasing, one of Europe's largest IBM leasing organisations, was last week offered as a "fail-safe" backup for other companies, and the first three customers, including Guardian Royal Exchange, the insurance group, have been announced.

BL Systems has also developed a wide range of computer technology related to manufacturing and business communications. It is estimated that about 15 per cent of the company's work this year will be for concerns other than BL, and this is expected to rise to at least double that figure by the end of the decade, according to Mr John Leighfield, managing director.

"BL's technology is now very respectable by North American and European standards. We have made a great leap forward and are up with the leaders – and in advance of Detroit in some areas," he said.

Mr Leighfield also believes that it benefits BL as a whole for his company to be seen to be winning blue-chip customers outside the group. He gives Lucas, Tube Investments, British Telecom, Citibank and Cadbury Schweppes as examples.

Turnover of BL Systems is expected to rise to about £3m this year, compared with £200,000 in 1980.

Editorial Comment Page 14;
Replacement Rover Page 16

Decision day for Labour and unions

By John Lloyd, Labour Editor

TRADE UNIONS and the Labour Party will make decisions today on issues fundamental to their future strengthened relationship to government.

These are:

- The structure of the TUC General Council;
- The kind of employment legislation which the TUC will press on future governments;
- The nature of an agreement on economic policy and pay with a future Labour Government.

The first issue is a long-running dispute which still divides unions, generally on a Left-Right basis.

The council's political balance is at stake, and a new system, passed by Congress last September, for automatically allocating at least one council seat to every union with more than 100,000 members, is at issue.

Left-led unions, fearing reduced influence as smaller, generally Right-led unions seem set to gain representation from September, have lobbied hard against it.

They may succeed at today's meeting of the TUC finance and general purposes committee in voting down a paper proposing a change in TUC rules necessary for this system.

The TUC staff paper proposes that the rules be changed to say that only unions or union sections whose executive is not subject to decisions by a higher authority may be represented on the council.

This is designed to head off a move by some unions to affiliate sections separately, claiming they are autonomous, to gain extra seats.

The unions and the party also meet today to finalise a pre-electoral pact between the Labour movement's two wings.

On employment, the TUC has proposed a repeal of the 1980 and 1982 Employment Acts

The unions and the party are likely to agree on a pay formula including a commitment to involve unions in resource allocation and to raise low pay in return for the unions' "assuming a new responsibility for the planning of real incomes as an aspect of the production process."

BUILDING AND CIVIL ENGINEERING

On the road to Peshawar

INTERNATIONAL BIDS are being invited by the Pakistani Government for the financing and construction of one of the world's largest road building projects to be undertaken this decade.

The project will cost an estimated $650m-$750m and involves building a second carriageway on the Peshawar to Karachi road, which runs for 1,540km throughout the length of the country, starting near the Khyber Pass and Afghan border in the north and finishing on the Arabian Sea in the south.

Bidders must be led by a local Pakistani company and also have to include international civil engineering contractors and financiers who will provide $400m or more of the total cost as a long-term investment. They are being invited to submit bids consisting of a price for construction and detailed design work in one or three stages, together with a rate of interest for the $400m and a period of up to 16 years for repayment. The Government would like to award the contract this summer.

International contractors believed to be involved in preparing bids include Pauling and Taylor Woodrow from the UK, Dillingham of the U.S. which is already working on Pakistan's Terbela Dam, John Griggs of the U.S., Impreglio of Italy, and companies from other countries including France, Sweden, Korea and Brazil.

Interest in the contract is especially keen because the work will provide contractors with valuable experience in working on a major construction project in Pakistan, in readiness for the country's $4.5bn Kalabagh Dam project which is expected to go to tender in 1987.

The financial terms offered may be affected by support provided by foreign countries for their own contractors although the British Government is not likely to provide any special financial backing because the project would not create many jobs in the UK.

The road, which follows the River Indus in the south, was first mooted ten years ago, but finance was not available. Pakistan also does not have the know-how or equipment to do much of the work on its own, although three stretches totalling 150 km are underway. "The reasons for the slow progress are inadequate financing and inexperienced contractors in Pakistan," says Brigadier Khalid Amin, chairman of the National Highways Board. "Efforts are being made to create road building contractors in the country but it will take time. The basic weakness is in the management of large highway projects and the maintenance of the equipment. The present utilisation of road building equipment is barely 15 to 20 per cent of the optimum."

The project has not been regarded as a priority by international donors of development aid who are concentrating their resources on energy, rural roads and agricultural projects in Pakistan. The government, however, is determined to press ahead and its decision to ask the private sector to finance the bulk of the cost fits in with President Zia Ul Haq's basic policy of banning any new major public sector investment projects. The government is relying instead on the private sector to fund Pakistan's economic growth.

The idea of the proposed partnership between the government and international and Pakistani private sector interests has been greeted with scepticism in the country. But serious interest is being paid by the business community here and Mr Mabub Ul Haq, Planning Minister, says he is "thrilled by the response to a new conception in capital project financing." Approaching 30 bids are expected to be submitted by the closing date of April 30 although many of these are not expected to be viable.

The government is insisting that local Pakistani companies take the lead in each bid and some of the country's long-established family business houses are showing an interest. A. G. Adamgee, part of the Adamgee family group, is preparing a bid including its own building company, Adamgee Construction, which was set up a year ago and is currently tendering for housing work in Iraq and hospital contracts worth $500m in Pakistan.

Mr A. G. Adamgee is having talks with contractors from Europe, the U.S. and Japan. Two other large family groups—Habib, which includes Hadri Construction—and Dawood, which owns a contracting company called Descon, are also looking for funds in the U.S. and Middle East and talking to foreign contractors.

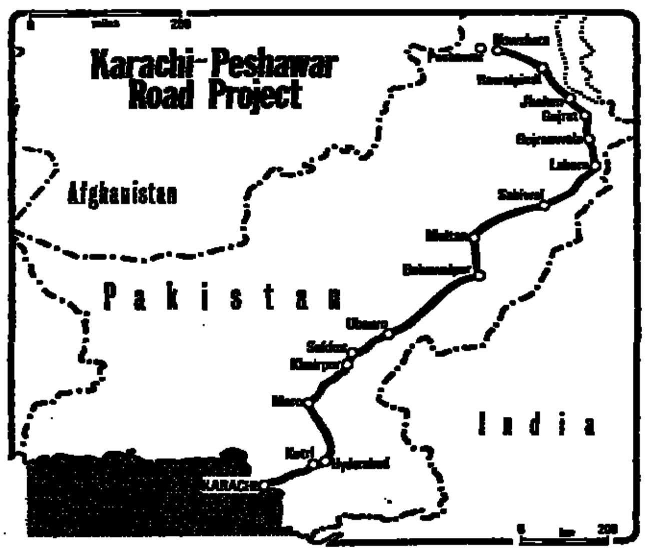
Gammon (Pakistan) is believed to be interested in the major bridge construction work which may be let as a separate contract. There are six major pre-stressed concrete bridges to be built to standardised designs. The government estimates these will cost $46m, including $18m for crossing the Indus at Kotri and $8m for crossing the Jhelum.

Pakistan's Highway Board staff have prepared basic designs and specifications. Guidelines issued by the Board to bidders say that the government will levy a toll on the road raising $66m a year. The proceeds would help finance construction after the fourth year of the six-year project.

The government's own investment, totalling about $240m would start with U.S.$4m in the first year and rise to $45m in the fourth year and to $68m in the sixth. A total of about $80m in foreign exchange would be needed for the construction, including $40m for plant, equipment and spares, between $27m and $54m for imported asphalt depending on local availability of supplies and $10m for foreign staff.

The Highways Board intends to reimburse contractors for import duties on plant, and is asking the government for a tax holiday on foreign companies' profits.

JOHN ELLIOTT



Engineers go for limited liability

CONSULTING engineers, weary of waiting for the laws of liability to be straightened out, are to be permitted to practise under limited liability within the UK as well as abroad. This follows similar moves taken over the last year by architects, and chartered surveyors.

The Association of Consulting Engineers (ACE), whose members were involved in £53bn of overseas work in hand last December 31, against £47bn a year earlier, has recommended that the change in its articles permitting limited liability should be presented at its annual meeting on Friday May 13, and subsequently to a full postal vote.

ACE voiced its concern on delays on liability law in February of last year. It saw dangers, not only to its own members but also to the general public who, it said, might be "starved of innovative developments and are being faced with the increasing hidden costs of protective insurance."

Now, says the Association's secretary, Major-General Peter Pellereau, it acknowledges first that latent damage law is not going to be changed in a hurry; and, second, that when the law is changed, it may not operate in favour of the engineers.

General Pellerean said that ACE is prepared to discuss limited liability with individual members, but not to advise them whether they should opt for it.

Meanwhile ACE reminds members that because claims can be made against individuals, consulting engineers will remain liable for personal negligence affecting third parties. "In this," says ACE, "they are no different from other members of the community."

WILLIAM COCHRANE

ESTIMATED CAPITAL COST OVERSEAS WORK IN HAND

Engineering category	£m Dec. 31 1982
Airports	1,591
Chemical, petroleum and gas	1,664
Desalination	400
Drainage, sewerage, etc.	4,623
E&M services	2,377
Harbours and docks	3,950
Hydro-electric	1,701
Irrigation	1,259
Land planning and development	1,410
Nuclear power stations	196
Railways	4,001
Roads bridges and tunnels	8,061
Structural—commercial	7,311
Structural—industrial	2,930
Thermal power stations	4,436
Transmission of power	1,741
Water supply	4,368
Miscellaneous	1,038
Total	53,057

Mr and Mrs Austin Stokes (left) are looking forward to meeting the Lord Mayor of Birmingham today when he officially opens, as a museum piece, the house that was their home for 16 years. Then it stood in Moat Lane, Yardley, but now it has been rebuilt at the Avoncroft Museum of Buildings near Bromsgrove. (Director Mr Michael Thomas—right).

The Stokes's home was a "prefab," once a common sight in all major cities, and their particular Arcon Mark V prefab is still in excellent condition. Originally built by Taylor Woodrow Arcon, the prefab has been furnished as far as possible with items appropriate to the post war years of austerity.

Restoration has been sponsored by the Taylor Woodrow Group assisted by grants from the Science Museum and a local charitable trust. It will be open to the public, together with a working windmill and several other buildings, tomorrow. There were 21,000 prefabs still in use in England, Wales and Scotland in 1974, the last year for which the Department of the Environment has figures — probably only half this number still exist.

Prefabs were introduced under the Temporary Housing Act of 1944, and were described as two-bedroom bungalows of 650 sq ft, with an estimated life span of 10 years.

The DoE points out that the life span related to the limited living space which was not intended to provide permanent homes, rather than the estimated life of the prefab as a structure. There were a total of 124,455 prefabs built in England and Wales, and 32,691 in Scotland, most of them between 1945 and 1948.

TONY FRANCE

Contracts worth over £14m awarded to Norwest Holst

Contracts totalling £14.26m have been awarded to NORWEST HOLST. The following is a selection of the larger jobs. Work has started on a 2½ year £2.5m contract for Kent County Council, on a 1.2 km of flex carriageway with two junctions, two reinforced concrete over-bridges and drainage of the A229 at Blue Bell Hill, Chatham. The Southern Water Authority has awarded a £1.2m contract for the construction of a 30m litres per day capacity water treatment works including buildings, water retaining tanks, piling, pipelines and roadworks at Beauport works, Hastings.

A £1.2m contract for work on the Upton by-pass has been awarded by the Merseyside County Council. Work includes general clearance, drainage, 2 km of single carriageways, two roundabouts, two junctions and landscaping. The Greater Manchester Council has awarded a £1.4m contract for the widening of Princess Road within the central reservation, of the existing 2.3 km dual carriageway. Construction includes flexible surfacing on the existing road surface, reconstruction of footpaths and associated drainage works.

A £1.6m contract from Boskalis-Keys for the conversion of a department store to form 14 retail units, ground floor mall and a first floor market hall in Commercial Road, Bournemouth. A £1.127m contract from British Telecom (Wales and the Marches) for construction of the administration block, stores, engineering/transport workshop and external works of the Telephone Engineering Centre at Merthyr Tydfil. A £2m contract for mains and service laying and ancillary works in the east area has been awarded by Wales Gas. Work has started, with completion in April 1985. West Midland Gas has awarded a £2m contract for mainlaying, service laying and associated works in the Worcester area.

£10m work for Laing

Contracts worth almost £10m for offices, new homes and housing repairs have been awarded to JOHN LAING CONSTRUCTION in Surrey, Birmingham and Belfast. At St Nicholas Way, Sutton, a part-nine, part-five storey reinforced concrete frame office building is under construction under a contract worth about £5.3m awarded to Laing by McKay Securities. Completion is due in late 1984. A four-storey reinforced concrete frame office building is under construction at Guildford Road, Woking, under a £2.2m contract awarded by Merchant Investors Assurance Company, with completion due by March 1984. In the Manor Street area of Belfast, a £1.5m housing development for the Northern Ireland Housing Executive, comprises six bungalows, 54 houses and 16 flats, with completion due by the autumn of 1984. At Castle Vale, Birmingham, a re-roofing contract worth nearly £800,000 has been awarded by the City of Birmingham for construction of new roof structures and provision of insulation and drainage to 495 council houses. Work is due for completion in a 20 week period.

*

J. JARVIS AND SONS has won five contracts totalling almost £2.5m in the south of England. At Wandsworth Prison major alterations and extensions to the kitchen block are being carried out for the Home Office at a cost of £850,000. In Woking a £400,000 office block is to be built for Sheston Management in conjunction with the Medical Sickness Group. Further alterations and additions costing £230,000 are underway at the offices of Honda (UK) in West London.

A £429,000 factory is under construction for Phillips Yeast Products to replace similar premises destroyed by fire last year. At Hayes, Middlesex, Jarvis are developing a 15 acre site on which initially six warehouse/factory units are being provided at a contract value of £548,000.

OVERSEAS

Master plan for port in Indonesia

PETER FRAENKEL AND PARTNERS in conjunction with P. T. WIRATMAN AND PARTNERS and P. T. GEODATA BERLIAN CENTRE, both of Jakarta, have been appointed by the Directorate General of Sea Communications, Indonesia, to update the master plan for the port of Tanjung Priok and carry out a feasibility study for the future development of the port. Particular attention will be paid to the Indonesian Government's "gateway port policy" which is likely to increase substantially both the inter-island cargo and deep-sea cargo moving through the port. The total fee, including site investigation, is in the region of £500,000 of which around 40 per cent is payable in sterling. Peter Fraenkel and Partners will be assisted by the Felixstowe Port Consultancy Service on aspects concerning port operations, The Economist Intelligence Unit on traffic forecasting and economic feasibility, and Peat Marwick Mitchell and Co. on financial analysis. The second stage of detailed engineering design for the proposed facilities is likely to follow and will probably include a new container terminal, with breakwater protection, to the east of the existing port. The project is due to start shortly and will be financed by the World Bank.

TILDEN INDUSTRIES, Bristol, is supplying the National Buildings Construction Corp, Delhi, with over £150,000 worth of scaffolding for Iraq which will be used on the construction of 12 new railway stations.

TECHNOLOGY

EDITED BY ALAN CANE

WIRING UP BRITAIN FOR TELEVISION AND DATA

Rediffusion's cable star is born

BY GEOFFREY CHARLISH

AFTER WHAT has clearly been a concerted effort at Rediffusion Engineering's research centre at Kingston-upon-Thames, the company has arrived at its particular conception of "wired Britain."

It is a coaxial cable system based on the so-called "switched star" approach and has been named, for the time being at any rate, "System Eight." It is certainly the most sophisticated approach to be seen so far in the UK in a practical, engineered form.

Mr Richard Dennis, Chief Executive Officer of Rediffusion Consumer Electronics emphasises that the system can use optical fibre if necessary. "At the moment it is too expensive" he said at the Kingston demonstrations.

The nerve centre of System Eight is a central computerised switch serving up to 50,000 premises. This central controller accepts television channels from the terrestrial transmitters, from satellite ground stations and from other video and data sources such as banks.

Radiating from this centre will be four main trunk paths each consisting of six coaxial cables carrying five TV channels each, yielding the total of 30 channels allocated by the Government to the service.

At appropriate points along the trunk routes "data concentrators" are to be installed. From these, sub-trunk cables will radiate to feed up to eight local switching centres. Finally, each of the local switches will radiate up to 64 coaxial cables to premises and each of those will take three channels into each house.

At the house or office the cable makes its final division into three further cables, each supplying a single TV receiver with one chosen channel. For each receiver the subscriber will have a small wall-mounted key pad and display for channel selection and data entry, capable of remote operation by a hand-held infra-red unit of the kind used to operate TV sets.

All the incoming channels, TV or data, are present only up to the local switch. When the subscriber chooses a channel, a simple message goes back over the local cable to the data concentrator, which then tells the appropriate local switch which three channels should be going into that house. In fact, all the subscribers' units are electronically polled many times per second by the system to pick up new instructions.

Thus, all the channel management equipment is concentrated outside the subscribers' premises, cutting system costs according to Rediffusion.

So much for the basic technology. What it all means for the user is, if anything, even more intriguing.

For example, channel choice is not based on printed programs or rapid user switching between channels to see what is on. Instead, the viewer can see all the channels in miniature on a 6 x 5 mosaic "choice panel," each tiny picture carrying a channel numeral.

Rediffusion has some interesting ideas as to how the 30 channels would be deployed. The first 15 would be available to all subscribers. Channels one to four would carry the BBC and ITV programmes, five might be some distant TV channel, while six would be a satellite transmission.

The company believes that as many as eight channels might be aimed at specialist women's interests, while another two would be for young people. Others could cover old films, travel, adult literacy and local government, says the company.

A further ten channels would be premium channels, which would be specifically billed (and there is a technical facility for doing this). Into this category would fall new films, special sports events, the arts, particular satellite channels, 24 hour news and business/financial channels.

System Eight will also be able to carry any higher definition TV that might develop (1125 lines for example) without any reduction of the channel capacity.

A good deal of the Kingston site is taken up with full scale demonstration rooms in which the various user facilities are being shown. Some of the hitherto rather theoretical ideas like telebanking have been brought to life, albeit with a simulated bank.

Such facilities need a discrete return connection from any individual subscriber to bank, building society, public utility or whatever, and Rediffusion have invoked teletext techniques for the purpose.

But there is an important difference from ordinary teletext. There are only a few spare TV picture lines available for transmission purposes which restricts the data rate so that a user has to wait, on average, some 20 seconds before he gets the frame he has keyed.

The Rediffusion system is called Cabletext and because of the abundance of channels, a whole TV channel bandwidth can be employed to transmit frames, reducing waiting time to virtually nil.

In practice, each subscriber has his own Cabletext frame number plus a personal identification number (PIN). To perform a transaction he keys the number in whereupon the receiver he is using "captures" his personal frame upon which he can enter data.

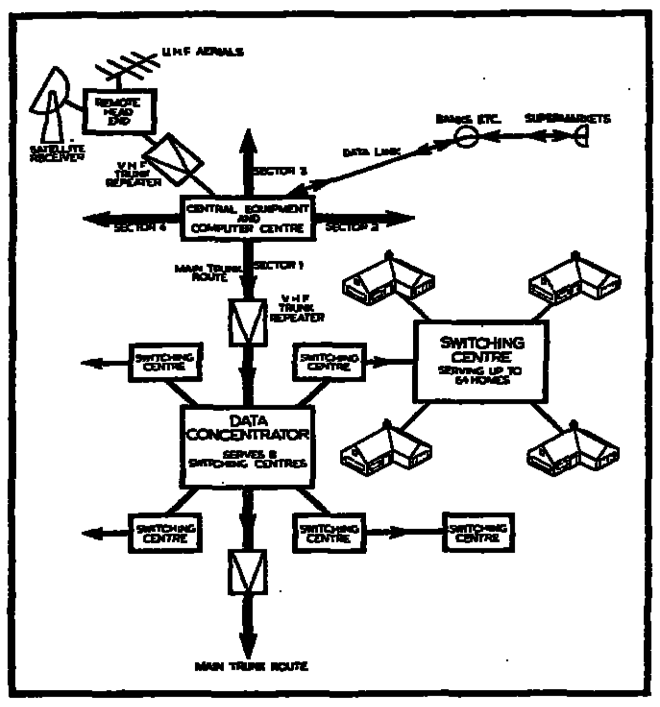
The frame would vary to suit the business to hand, so that the user might pay his gas or electricity bill, select items for purchase that were being shown on one of the dedicated TV channels, place a bet while watching the TV broadcast from the racecourse—the Cabletext alphanumerics would be superimposed on the picture as they are with teletext.

Using a new kind of Cabletext TV receiver that Rediffusion has developed, four pages can be captured and stored rather than the single page of normal teletext. Thus, another use the company foresees is downloading of personal computer software from some central store of programmes. In theory this could obviate the use of expensive magnetic storage for the personal computer.

System Eight has many other tricks up its sleeve. For example, on one of the three incoming home channels, a doctor for example might receive specific medical information from his surgery or the hospital. But, by simple key depressions he could prevent any other member of the household from looking at it when he is out. He uses his PIN and a special "lock" number. Policemen could have similar facilities.

Emergency messages could be flashed on all subscribers' screens, sales managers could contact their salesmen—the list is considerable.

Richard Dennis believes he has "a trail-blazer for cable world-wide."



FIGHT FOR COPIER MARKET

Rank's answer to Eastern challenge

THE RANK XEROX answer to the Japanese challenge in the middle volume (5,000 to 25,000 per month) copier market, the new 1045 series, owes much to a concerted, ultra-thorough design approach at the company's main UK centre at Welwyn Garden City in Hertfordshire.

The all too familiar Japanese weapon of cost reduction and higher reliability / versatility has been emulated by the Welwyn team under engineering director Jack Fryer.

The result is a series of machines with a bottom-end price of under £6,000 operating at 35 copies per minute. They can copy virtually any original regardless of colour background and they "hold the user's hand" at all times via a 32-character display screen. They are unlikely to jam or go wrong.

Any fault that does develop is immediately diagnosed by the machine's microprocessor and shown as one of 65 possible messages on the display—in almost any language to suit the sales area.

The micro looks after almost any action the machine or operator can take and a software team is continually examining new possibilities.

For example, later models will probably keep a check on the number of copies each user has made and also will be able to find out how much each of the machine'e facilities has been used, for market research purposes.

Jamming risks

In the basic version, originals up to B4 size are placed on a stationary platen and copies are delivered to a simple catch tray. Reduction ratios of 71 and 62 per cent are offered as well as same-size copying. Thus, A3 documents can be reduced to A4.

Two copying paper trays (A3 and A4) are moved to supply a single-feed head as demanded—rather than having fixed trays feeding two heads — cutting costs and reducing paper jamming risks at the same time.

Options include an input document handler into which originals are simply "posted" one by one, a 15-bin sorter, a collating unit and even a device that staples collated sets together.

The 1045 is built around three major die castings up to 2.5 feet square, with a truly international flavour: they were designed at Welwyn, and are cast in Germany, machined at Mitcheldean in Gloucester with tooling from Norway.

Very little seems to have been left to chance in the 1045 design. For example, field service engineers were in at the start, to design-in maintainability, and all the teams involved went on a value engineering course before they started.

Testing has been exhaustive, with over 10m copies produced under all the environmental conditions likely to be encountered in service, from "dry arctic" to "wet tropical." People have even been employed to ill-treat the machine on a planned basis.

With the whole of the 10 Series now launched, there is clearly an atmosphere of expectation at Welwyn where the big electronics plant equipped, for example, with a dozen Teradyne L125 automatic testing machines, is hungrily awaiting a new flow of work.

G.C.

Materials

Asbestos alternative

AN ALTERNATIVE to asbestos has been developed by Imperial Chemical Industries.

Called "Fontress E," the material is a conventional non-woven glass fibre coated with a refractory aluminosilicate sheath. It is claimed to match asbestos tissues in thermal and mechanical propeties and to be a lower cost alternative to ceramic fibre tissues.

A flexible product, halfway between paper and cloth and supplied in rolls, the fibre is said to show exceptional fire and flame resistance when used as a facing or barrier material. It also helps to suppress smoke generation from other materials.

Because it retains strength and integrity at high temperatures, it can contribute to the structural integrity of laminates and composites well above their normal operating temperatures.

Fortress T will not normally be used on its own but, like the asbestos products it can replace, it is more likely to be employed as a facing or interlayer in composite materials.

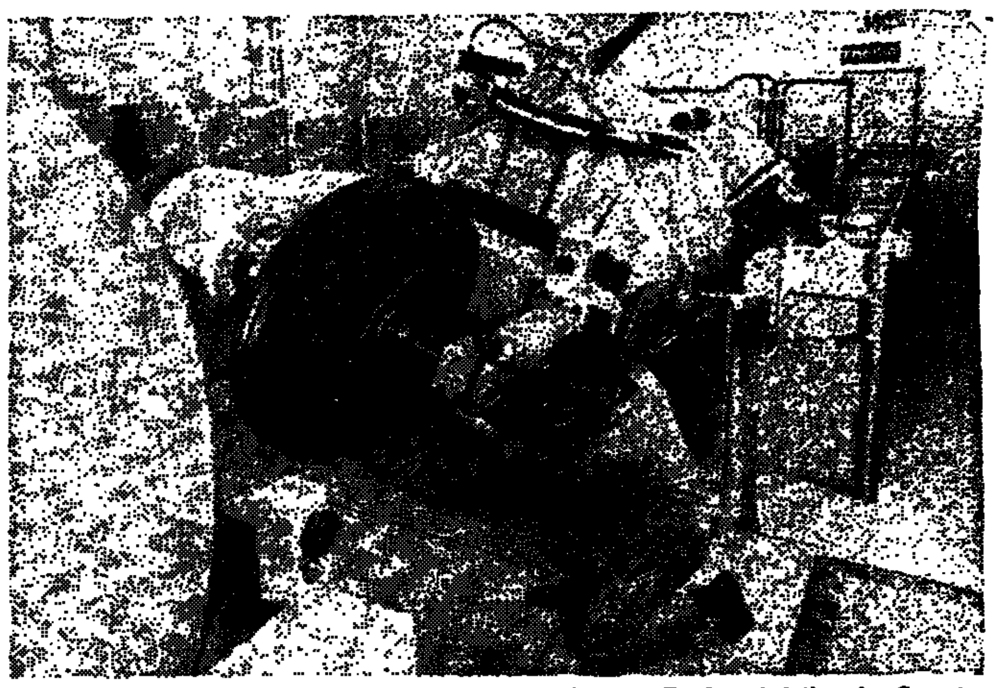
Likely applications will include fire barriers in aircraft, fire resistant facings for plastics and foams and heat barrier papers in domestic appliances such as toasters, irons and cookers. More from ICI Mond Division on 0928 514444.

Packages

Softest for Tandy

SOFTEST of Romsey, Hampshire has produced a package which allows a low cost Tandy four colour printer (a mere £149) to be interfaced to a Sinclair ZX81 (£49.99) or Spectrum (£125 for 16K). The package costs £35. Dr C. E. Fernando who developed the package notes that simple software commands allow the choice of red, blue, green or blue colours and points can be plotted to within 0.2mm resolution.

A continuous roll of paper 96mm wide is used and up to 80 characters can be printed across the width of the paper. Softest is at 10, Richmond Lane, Romsey, Hants.



A fitter sets up the £1m dual head roll test machine at Dunlop Aviation in Coventry

Fruits of Dunlop's aviation facility

QUALIFICATION testing of the nose wheel for the Boeing 737-300 under ground roll conditions, the main wheel for the carbon brake on the Boeing 757 and an uprated out-rigger wheel for the McDonnell Douglas AV8B advanced Harrier is among the first fruits of installation of a £1m facility by Dunlop Aviation at Coventry.

Made to Dunlop's specification by Vickers Design and Projects division, the facility is the first to combine aircraft tyre research and life testing under taxi-ing conditions up to 40 mph. It has two independent stations capable of simultaneous operations.

A rotating drum simulates the runway. The wheel and tyre assemblies are programmed for variable radial and yaw loads, plus a wide range of camber angles. There is computerised drive with VDU displays.

The facility continues a 20 years' association of the two companies that started with the world's first aircraft tyre testing machine, followed by the first high speed tyre wheel and brake dynamometer.

PETER CARTWRIGHT

BBC Microcomputer

Interface on demand

AN INTERFACE for the BBC microcomputer so that it can be used for industrial applications has been developed by 3D Digital Design and Development, London.

The interface which costs between £100 and £500 was developed in response to demand from two customers, one an industrial user and the other a university research department.

3D says that it has already added monitoring and control facilities to a range of micros including Commodore, Apple, Sharp and Sirius for applications such as chemical and medical research, process control, production engineering, mechanical and component testing.

BOND DRAWINGS

KINGDOM OF NORWAY US.$25,000,000
5½% 20 YEAR EXTERNAL LOAN OF 1964

HAMBROS BANK LIMITED hereby gives notice that in accordance with the terms and conditions of the above loan, the redemption for 13th May 1983 has been effected by the purchase of US.$865,000 (nominal) and the under-mentioned bonds amounting to US.$1,741,000 (nominal) were drawn on the 8th March 1983 for redemption at par. The outstanding balance after the 13th May 1983 redemption is US.$2,749,000 (nominal).

The drawn bonds may be presented to Hambros Bank Limited, 41 Bishopsgate, London EC2P 2AA or to the other Paying Agents named on the bonds.

Bonds surrendered should have attached all unmatured coupons appurtenant thereto. Coupons due 13th May 1983 should be detached and collected in the usual manner.

For payment in London bonds will be received on any business day and must be left three clear days for examination.

BONDS OF US.$1,000

[illegible]	[illegible]

HAMBROS BANK LIMITED
21st March 1983

COMPANY NOTICES

GENERAL MOTORS CORPORATION

Further to the DIVIDEND DECLARATION of 21st February, 1983, NOTICE is now given that the following distribution will become payable on and after the 15th March, 1983, against presentation to the Depositary (as below) of Claim Forms listing Bearer Depositary Receipts.

GROSS DISTRIBUTION PER UNIT	3.00 CENTS
LESS 15% U.S. WITHHOLDING TAX	.45 CENTS
	2.55 CENTS PER UNIT
CONVERTED at $1.5200 =	1.67763 PENCE PER UNIT

Barclays Bank PLC
Securities Services Department
54 Lombard Street, EC3P 3AH

21st March, 1983

TDK ELECTRONICS CO LTD (CDRs)

The undersigned announces that as from 30th March 1983 at Kas-Associatie N.V., Spuistraat 172, Amsterdam, div.cp.no. 19 (accompanied by an "Affidavit") of the CDRs TDK ELECTRONICS CO., LTD., each repr. 100 and 1.000 shs. will be payable with Dfls. 16.67 net per CDR, repr. 100 shs and with Dfls. 166.70 net per CDR, repr. 1.000 shs. (div. per record-date 30.11.1982; gross Yen 17.50 p.sh.) after deduction of 15% Japanese tax =
Yen 262.50 = Dfls. 2.93 per CDR, repr. 100 shs.
Yen 2.625,— = Dfls. 29.30 per CDR, repr. 1.000 shs.
Without an Affidavit 20% Jap. tax =
Yen 350,— = Dfls. 3.91 per CDR, repr. 100 shs.
Yen 3.500,— = Dfls. 39.10 per CDR, repr. 1.000 shs.
will be deducted.
After 30.6.1983 the div. will only be paid under deduction of 20% Jap. tax with Dfls. 15.69 net per CDR, repr. 100 shs and with Dfls. 156.90 net per CDR, repr. 1.000 shs. in accordance with the Japanese tax regulations.

Amsterdam, 16th March 1983
AMSTERDAM DEPOSITARY COMPANY N.V.

SPANISH 4% EXTERNAL LOAN (1974 ISSUE)

The coupons due 1st April 1983 may be presented for payment at BANCO EXTERIOR—U.K., 60 London Wall, London, EC2P 2JB, between the hours of 10 a.m. and 2 p.m.
London, 21st March, 1983.

LEGAL NOTICES

IN THE MATTER OF THE COMPANIES ACT 1948
and
IN THE MATTER OF JESSEL SECURITIES LIMITED IN LIQUIDATION

NOTICE IS HEREBY GIVEN pursuant to Section 299 of the Companies Act, 1948, that a General Meeting of the Members of the above named Company will be held at the offices of Cork Gully, Guildhall House, 81/87 Gresham Street, London EC2 on the 13th April, 1983 at 10.30 a.m. to be followed at 11.00 a.m. by a General Meeting of the Creditors for the purpose of receiving an account of the Liquidator's acts and dealings and of the conduct of the winding-up to date.

A member entitled to attend and vote at the above meeting may appoint a proxy to attend and vote instead of him. A proxy need not be a member of the Company.

Proxies for both meetings must be lodged at the address below not later than 4 p.m. on 11th April 1983.

Dated this 21st day of March 1983
P. F. M. Shewell
Liquidator

Abacus House
Gutter Lane
Cheapside
London EC2V 8AH

CLUBS

THE GASLIGHT OF ST. JAMES'S, London's most exciting businessman's night time retreat. No membership needed. 2 bars, dozens of danceable companions. Intriguing Cabaret Acts. Happy hour 8-9 pm. If required, superb three-coarse dinner, only £9.75 plus service and tax. Entrance fee £5.75 (£5 refunded to diners ordering before 9 pm). Mon.-Fri. 8 pm-2 am. Sat. 9 pm-2 am. 4, Duke of York Street, SW1. Tel: 01-930 1648/4950.

RAMON'S NIGHTCLUB RESTAURANT, 42 Dean Street, W1. Where today's businessman can relax and enjoy an exciting evening. Various cabaret spots throughout. Charming and discreet dancing partners available. Open nightly 9 pm to 3 am. Tel: 01-437 9455.

EVE has outlived the others because of a policy of fair play and value for money. Supper from 10-3.30 am. Disco and top musicians, glamorous hostesses, exciting floorshows. 189 Regent St. 01-734 0557.

ART GALLERIES

WHITECHAPEL ART GALLERY, E1. 377 0107 tube Aldgate East to 10 April WHITECHAPEL OPEN EXHIBITION, Sun-Fri. 11-5.50. cl. Sat. & 1-4 April. Free

BROWSE & DARBY, 19 Cork St., W1. 01-734 7984. FRENCH & BRITISH Paintings, Drawings & Sculpture.

FIELDBORNE, 63 Queens Grove, NW8. 01-586 3600. HARRIET LASSALE AMERICAN JOURNEY.

LEFEVRE GALLERY, 30 Bruton St., W1. 01-493 1572/3. CONTEMPORARY PAINTINGS ON VIEW. Mon.-Fri. 10-5 and Sats. 10-12.45.

TRAVEL

TOKYO, Osaka, Seoul, Taipei & Far East. Wide choice of discount flights. Brochure. Japan Services Travel. 01-437 5703.

MEMORIAL SERVICE

CRAVEN. A memorial service is to be held for Thomas Leonard Craven on Thursday 24th March at 12 noon at St Giles Church Cripplegate, City.

EXHIBITIONS

COLNAGHI, 14 Old Bond Street, London, W1. 01-491 7408. ENGLISH ANCESTORS. Until 31st March. Mon.-Fri. 10-6, Sats. 10-1.

FINANCIAL TIMES
PUBLISHED IN LONDON & FRANKFURT

Head Office: The Financial Times Limited, Bracken House, 10 Cannon Street, London EC4P 4BY. Telex: 8954871. Telex: (Advertising) 885033. Telegrams: Finantimo, London. Telephone: 01-248 8000. Frankfurt Office: The Financial Times (Europe) Ltd., Guiollettstr. 54, D-6000 Frankfurt-am-Main 1, West Germany. Telex: 416193. Telephone: 7598-0. Editorial: Guiollettstr. 54. Telex: 416052. Telephone: 7598-157.

INTERNATIONAL & BRITISH EDITORIAL & ADVERTISEMENT OFFICES

Amsterdam: P.O. Box 1296, Amsterdam-C. Telex: 16527. Tel: 276 796.

Madrid: Espronceda 32, Madrid 3. Tel: 441 6772.

[illegible]

For Share Index and Business News Summary, Telephone 246 8026 (number, preceded by the appropriate area code valid for London, Birmingham, Liverpool and Manchester).

All advertising is subject to the publisher's current terms and conditions, copies of which are available on request.

Look before you book.

	SAS	LUFTHANSA	KLM	SWISSAIR	AIR FRANCE	BRITISH AIRWAYS
Separate Business Class section.	Yes	Yes	Yes		Yes	Yes
No. of chairs abreast on a Boeing 747.	8	9	10	9	10	9
No. of chairs abreast on a DC-10.	7	8	8	8		
Legroom (in.)	38"	37"	38" (747) / 34" (DC-10)	34"	34"	34"
Electronic headsets.	Yes				Yes	
Separately served courses.	Yes					
Business Service Lounges included in the price.	Yes				New York Paris	
Telephone on board.	Yes					
Inflight postal service.	Yes		Yes	Yes		

If you are an intercontinental business traveller, you might be interested to know that there is quite a difference between one Business Class and another.

Some airlines actually give you a lot more without charging for it.

Like SAS.

On SAS First Business Class you get next-to-First Class service and comfort.

But you pay only the normal Economy fare.

So next time, see if you can fit SAS into your travel plans.

It's nice to get more without paying for it.

SAS
First Business Class

THE MANAGEMENT PAGE

EDITED BY CHRISTOPHER LORENZ

A banker's role in state corporate rescues

David Marsh talks in Paris to Jacques Mayoux, the president of state-owned Société Générale

"THE FRENCH are probably the champions at keeping alive companies in difficulties, using a whole series of mechanisms," says Jacques Mayoux. He should know, for, until he became chairman last year of Société Générale, the state-owned bank with traditionally the strongest links with industry, the 58-year-old Mayoux was head of the much troubled, and now nationalised, steel group Sacilor.

"The measures can be effective in cases where companies which would be condemned by purely financial criteria can be saved from failure, and their human and technical resources prevented from going to waste. But there are other cases of companies which simply drag on," he says baldly.

The shrewd, tough-minded and loquacious Mayoux — he thinks nothing of delivering 10,000 words during an interview over breakfast-time coffee and croissants—is at the centre of France's complex system of industrial intervention.

He has plenty of experience —from diverse vantage points — of the delicate system of arrangements by which the Government pulls financial levers to rescue companies in trouble or promote national economic interests.

He is independent-minded enough to criticise openly some aspects of the Socialists' policies. But he is also able to set them in the perspective of traditional interventionist attitudes in France.

As some free market-oriented Anglo Saxons frequently need reminding, intervention as a policy tool in France was not suddenly invented with the election of President Mitterrand in May 1981.

But partly because of the deepening economic crisis and partly because of the socialists' preference for direct methods —notably the sweeping programme of nationalisations last year — the banks have been drawn increasingly into efforts at corporate restructuring.

In a country where the bulk of the commercial banking system is nationalised (Société Générale, along with the other two of the Big Three, Banque Nationale de Paris and Credit Lyonnais, were taken over in 1945; most of the rest last year), Mayuox knows that government directives are something he has to live with.

As the recession has lengthened, the banks have been called in by the Government to help bail out an increasing number of companies in distress by rescheduling debt, agreeing new loans or even by taking equity participations. The list of companies recently helped in this way — though often with a tough rationalisation plan involving workforce cuts as a quid pro quo —is impressive.

It includes Poclain, France's number one construction equipment maker, Prouvost, the biggest textile group, and Bidermann, the country's largest clothing maker. The list is not confined to French companies — it takes in, significantly, Massey Ferguson, the most important maker of agricultural machinery in France, and the French operations of the Dunlop rubber group.

In discussions with the Government over industrial restructuring, Mayoux prides himself as standing up for realism. "The real problem is that, at a certain moment, the bankers who understand industry can say 'No' to a Minister. That doesn't mean: 'I'm against this particular industry.' Rather it means: 'I'm not going along with this financing: I would like the project to be reconsidered.'"

Mayoux's ability and willingness to speak out are reinforced by his long banking and industrial lineage going back well before the days of the Giscard government. He was director general of the semi-state farmers' co-operative bank between 1963-75 before heading Sacilor between 1978-82.

He puts his finger with clinical precision on weaknesses in the present Government's industrial policies.

Last year's wide-ranging nationalisations of key industrial companies inevitably, he feels, slowed down decision-making. "The fact that chairmen and their teams changed everywhere was bound to have an effect. When you have got a company well in hand, you can make decisions rapidly. When you've only just arrived and you don't know the ropes, it can take between a year and a year and a half before you are really in control."

The Socialists' preference for across-the-board aid for domestic industrial sectors is summed up by the pet phrase of Jean-Pierre Chevenement, the Minister for Research and Industry, who says: "There are no condemned sectors, simply outdated technologies."

This, Mayoux believes, is somewhat too ambitious. "It is a fact that there is competition, whether you like it or not, between the new and the traditional industries. It is difficult to tackle both at once."

"Therefore, perhaps the policy of the 'market niche' (the more discriminating industrial policy practised by the Giscard government) was too selective in the past. But the policy of 'reconquering the domestic market,' of being present in all sectors is, I believe, equally not right.

"Choices have to be made at a certain moment. It is incontestable, if there is not enough adaptation of industries which have to adapt, then resources are taken away from the modern industries."

Mayoux also has firm views on the protectionist tendencies implicit in parts of the Government's policies. Banks are particularly exposed to "buy French" pressure over electronics as part of the Government's attempts to foster the national computer company, CIT Honeywell Bull, against strong competition from IBM.

"One of the tendencies in France, part of the intervention of the State, is to promote the 'buy French' solution. One sees that in the bank—it is necessary to buy national equipment and so on. The drawback is that people who are in a preferential position—it's a bit like the case of ICL in Britain—do not always exert themselves as much as they should.

"I believe certainly that priority should be given to national interests. But it is necessary to be terribly tough with the companies, to make sure that they make sufficient effort to deliver effectively."

Drawing on his time in the steel industry, the Société Générale chairman puts the present government's industrial policies into frank historical perspective.

"When it comes to the need for restructuring to bring industries back to health, the Government is confronted with a dilemma over unemployment. There is a traditional hesitation over this in France—more so than in Germany, the UK, or the U.S.

"In 1976, under the previous Government, there was a period when redundancies were systematically forbidden. When that was applied to the steel industry, we went two years without any adjustment."

He says that the problem in the French steel sector has not been shortage of investment funds—as Chevenement sometimes likes to claim—but rather their misguided direction.

"I knew that, in steel, we were investing in the wrong direction. I said it, I wrote it and I even refused to carry out investments that were foreseen. When I arrived (at Sacilor) in 1978, the Finance Ministry made me sign a letter saying: 'There you are. Here is the programme that has been decided. You tell us if you will follow it. Sign here'.

"I had been there a month—not knowing the company—and I signed," he recalls. "Afterwards, I looked at it properly, only afterwards. And I froze a series of investments, purely and simply. But it is still evident that in 1978 there was a whole series of investments which were, I would say, unhealthy, but which were kept going for political, psychological or social reasons."

Mayoux has no illusions about the scale of the political and economic conflicts when it comes to laying off surplus workers.

"From the human point of view, to have unemployed workers in the factories themselves—people who work to produce deficits—is obviously better than to have them queuing up at the labour exchange. But from the industrial point of view, that's catastrophic—it's better to have the unemployed workers outside rather than inside the companies.

"Because outside, they do not get in the way of innovation and progress. If one can't carry out progress within the factory, finding new production methods and so on, then, little by little, everyone becomes demobilised."

Despite his clearly-expressed doubts—for instance about the lack of sufficient progress in restructuring parts of the newly-nationalised companies—Mayoux sees some signs of greater realism in industrial reorganisation.

In the just-announced financial restructuring of Massey Ferguson's French operations, his bank is playing a leading role in providing a $49m aid package being put up by the Government and financial institutions. The plan—which will involve job cuts—marks "a change of attitude," says Mayoux.

At Massey's factory at Marquette in northern France — which he points out is close to Lille, the constituency of Pierre Mauroy, the Prime Minister — "the workforce is being reduced, although at one stage it was planned to be maintained as it was."

Another, more important, example, he says, is Motobecane, the loss-making French moped company which filed for bankruptcy last month in the middle of the campaign for France's municipal elections.

"The Government racked its brains to think of ways of saving it. But the Finance Ministry arrived fairly quickly at the opinion that it wasn't possible. And industrially not reasonable. It is remarkable that, during an election period, a company of that size is allowed to go bankrupt. That's a new phenomenon."

Glenn Copus

Eleanor Brushwood: "City Women's Network helps you work through a practical solution to a problem"

The old-girl network

WHEN Eleanor Brushwood was a schoolgirl in Connecticut, she never had any doubts about her future. "It was clear to me from a very early age that I'd have a full-time career. I never thought of doing anything else."

Now, at 31, she is one of the youngest associate directors of Merrill Lynch International Bank, and the most senior woman in the London division.

But it was not without difficulties. At Harvard Business School, where she took an MBA, the girls were outnumbered eight to one. "It was my first exposure to co-education," she says, "and it was a real shock. The majority of the students were very suspicious. They did not think you had a right to be there. I'd never faced any discrimination—I just assumed I could do what I wanted."

After Harvard, she joined Bankers Trust International and three years ago came to London to work for Merrill Lynch. Though American firms tend to be more used to career women than their British counterparts, discrimination still abounds. "You have to make it clear to the people you work with that you want a career too," says Brushwood. "Women do have to be better at what they're doing than men. It's going to be a while before it changes."

But as chairman of the City Women's Network, she might help to accelerate that change. The CWN was started up in the mid-1970s by a group of women involved in shipping who regularly met for lunch. It rapidly expanded and now boasts over a hundred members.

Prospective members need to have worked in a professional capacity for about five years—"people who have the determination to stick with it." All have a degree or professional qualification and most work in the City, though there are also representatives from journalism, advertising and industry.

In an informal way, CWN acts on an old-girl network. Members can help each other in their work, but can also provide moral support. "CWN helps you work through a practical solution to a problem that is not just yours," says Brushwood.

Once a month, there is a CWN lunch, often with a guest speaker. Male speakers, apparently, are sometimes disconcerted to find themselves so outnumbered — "they keep looking around for another man."

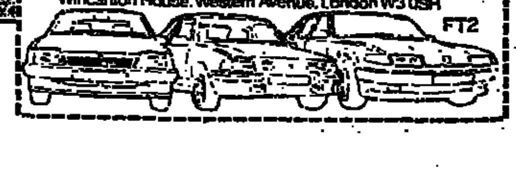
Volunteers from the network visit schools and universities to give talks about careers for women, and the network also campaigns actively for equal opportunities. As Brushwood points out, "The financial district has a lot of clout and is listened to very closely."

Merrill Lynch allows executive meetings of the CWN to be held in its boardroom. Says Brushwood, "It's been a real surprise for them to see 14 women trooping in."

She neatly summed up the philosophy of the group as she left for her afternoon's work in Eurobonds: "We have some extremely radical and some very conservative members, but most have a strong belief that they have a right to be where they are."

*City Women's Network, 58, Coleman Street, London, EC2.

Mary Ann Sieghart



THE ARTS

Architecture

Colin Amery

Honouring the old king

Without Sir Henry Cole there would be no Royal Albert Hall, no Victoria and Albert Museum and South Kensington as a name on the map would not exist. He was the first director of the South Kensington Museum which he built up into a great centre of art and industry, starting off with a motley selection of objects bought from the Government after their display at the *1851 Great Exhibition*. Without Cole the Great Exhibition would not have been the international event that it was—his success at persuading a very diverse group of 1,400 exhibitors to share the space in Hyde Park was a triumph of diplomacy and sheer hard work. Like so many people who actually get things done, Cole was highly unpopular.

He has never been properly commemorated for all his labours and when the Queen followed the footsteps of her ancestors to South Kensington on Thursday to name and open the Henry Cole Wing of the *Victoria and Albert Museum* it was a long overdue recognition of his achievement.

The Henry Cole Building, which is the first extension of the V. and A. for more than 70 years, will house the Department of Prints, Drawings and Photographs and Paintings. It is a remarkable consolidation of more than a million works, and putting them together in one identifiable unit frees other space in the museum and marks the important and successful beginning of a better use of the site.

The Cole Wing stands on Exhibition Road and is best known for its typically South Kensington style — dark red brick and light beige coloured terra cotta decoration. It was designed by Major General Scott of the Royal Engineers but it has some distinctly Cole touches. The most imaginative of these is the Italian loggia.

The twin bogies of cash and bureaucracy have bugged the progress of the museum. As long ago as 1974 the Department of Education and Science cut its allocation of funds by £1m radically affecting the plan to use the Huxley Building as a new centre for the V and A's remarkable and largely invisible Indian and Oriental collections. At that time an upper link gallery was planned to house the long awaited and much needed Twentieth Century Primary gallery. In May 1975 the Historic Buildings division of the Greater London Council objected to plans to demolish the great staircase — the one particularly distinctive and architecturally distinguished element of the building. This necessitated a complete rethink as the retention of the stairs meant that there was insufficient space to house the Indian and Oriental exhibits.

These are quite amazing in scale — there are doorways and fragments of Indian buildings as well as a mass of smaller objects. The decision to retain the staircase and use the. now renamed Henry Cole Building, for Prints and Drawings Paintings and Photographs was made in 1978 and but for outbreaks of dry rot the new galleries would have been opened a year ago.

Adapting the former school of science into a series of galleries and storage spaces has been carried out by the Museum and Galleries Group of the Government Property Services Agency. They have made a success of the conversion but, like so much of their work, it seems to be governed by regulations rather than inspired by a desire for beauty.

The entrance to the wing is from the Exhibtion Road side of the museum, and the first space you enter is the bookshop and orientation area. This has a mildly high-tech tone perhaps prompted by its proximity to the Boiler House end of things at the V and A. Rubber floors and white walls make a sharp contrast to the skilled hand lettering by Simon Verity that puts Henry Cole's name on the wall. Visitors see on the next level of the new building a display that is called *The Tip of the Iceberg* which is a changing display from the museum's immense archive of prints and drawings. There is also at this level a permanent display about the techniques of printmaking. This clearly shows the difference between etching and lithography and silk screen and is sensibly placed as an eye opener before a foray into the print room.

The important galleries on this floor will show the 18th and 19th century paintings in a series of fairly narrow galleries. The pictures are hung in an almost 19th century way —there are quite a lot of them in each room and they create a need for the garden seats that have been selected to suit the mildly Victorian flavour of the galleries.

On the third level the watercolours that are such a prize of the museum's collection are arranged to ensure maximum protection from the dangers of strong light. Photographs are also shown on level three—it is not always realised that the V and A is the home of the national collection of the art of photography.

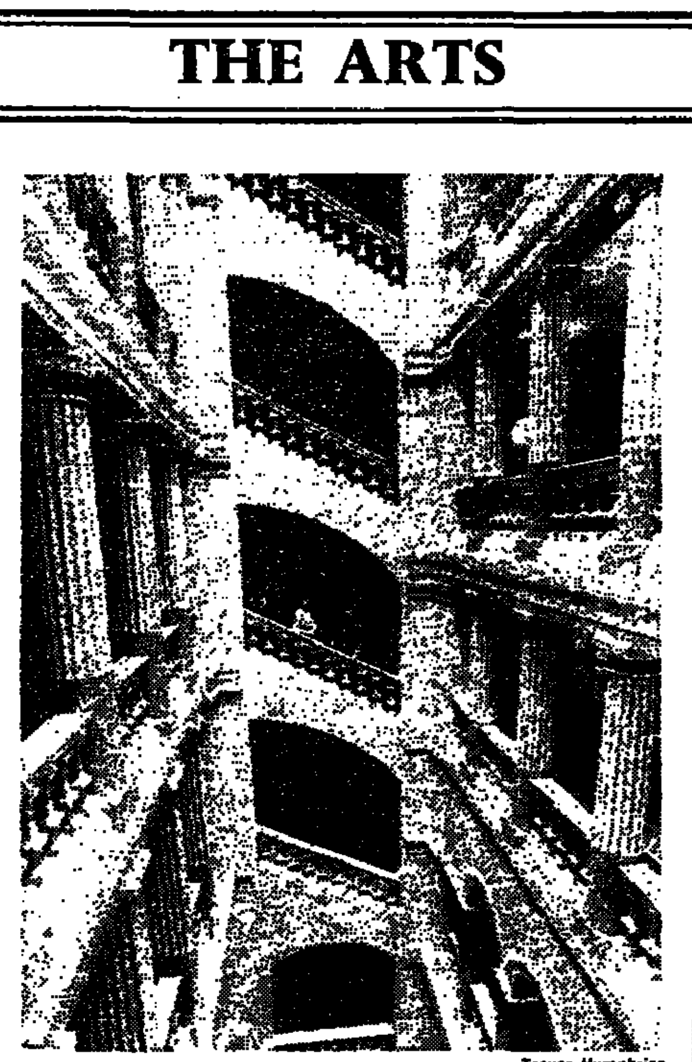
The entire collection of miniatures will be housed in the new building and a selection always on view.

It is on the fourth level (this is beginning to sound like the Barbican) that the real surprises are. The collection of paintings on glass by Gainsborough dating from the 1780's show the curiously prophetic, almost cinematic way that he had of looking at the world. Another real excitement is the display for the first time of a remarkable *Panorama of Rome* painted in 1824. This is mounted on a drum so that you can stand inside it and look at Rome from a uniquely advantageous viewpoint. It stands in a darkened space and arriving upon it is like seeing Rome for the first time on a spring day.

The new Print Room reckons to find you any print from the collection within ten minutes. It is a handsome room with high ceilings and substantial old fashoned furniture. The top floor of the new wing is top lit and will show principally Constable and his school of landscape painters. This collection was given to the museum by the artist's daughter, and there are more than 100 oils alone.

Also on this floor is a small coffee room where standards collapse suddenly. The coffee comes from a machine and there is no access, foolishly in my view, to the open loggia. Bureaucrats fear that children will leap to their deaths or throw coffee on the passing show. Not exactly what Sir Roy Strong wanted when he promised us all "Martinis with the *Bellinis*."

The Grand Staircase is a very impressive space and one that certainly should never have been threatened with demolition. It is to be used for the display of a selection of works from the museum on the subject of *Art in Ordinary Houses*.



Trevor Humphries

The staircase of the Henry Cole Wing.

Marilyn!/Adelphi

Michael Coveney

The exclamation mark is theirs, not mine. This truly lamentable musical by Jacques Wilson (book and lyrics) and Mort Garson (music) is yet one more leaden exercise in necrophiliac hagiography that sets out to explain the tragedy behind the legend of Marilyn Monroe and ends up, like they all do, jumping on the grave.

It is all symptomatic of the most dreadful type of revenge we take on stars whose quality we are not quite able to define. And, naturally, we wait until they are dead. The director and choreographer of *Marilyn!* is Larry Fuller, who worked on *Evita* with Hal Prince. His work here is an omelette without the Prince, a pretentious and finally insufferable mixture of randomly organised ingredients tracing the rise and fall of little Norma Jean via three marriages, a modelling agency, an affair with an agent, and squabbles with the board of 20th Century Fox.

We start with a promising ensemble number in which all interested parties, including the dentist and the girl next door, sing their heads off in a spirit of competitive reminiscence. For a while it seems as though David Hersey's design of moving camera cranes, descending gantries and general film studio hardware, all bathed in his own cunning lighting, will fix the show in a memorable style.

On one gantry is Marilyn's mother, consigned to an asylum. On the crane is a David Essex clone (John Christie) who is cast as all-knowing critical Che to this Hollywood Evita. He plays a role called Camera, and it is suggested that he is the only person with whom Marilyn has any future, any security. This rather obvious, but potentially good, idea, is never followed through. Camera comes and goes and finally orchestrates an impressive slide show of the real Marilyn's screen roles.

The effect of this production gambit is sabotaged by the intervening scenes of low-grade rock opera recitative and bathetic narrative short cuts. *The first marriage with Jim* Dougherty (Clive Carter) is meticulously set against Marilyn's background, culminating in an effervescent hoe-down of conga, samba and a hint of group molestation of little Norma.

Stephanie Lawrence in the title role is also seen to best advantage early on. She suggests the acquisition of a persona through the assembling of acutely observed mannerisms: the raised eyebrow, the experimental pout, the hip-wiggling walk and the faintly melodious heavy breathing that passed for a singing voice. The nice irony here is that Miss Lawrence is blessed with a very strong voice indeed, which she is not shy of exploiting to the full.

There are a couple of transformation scenes that quicken the pulse, as she suddenly cuts through the surrounding dross with perfect approximations of the Monroe allure. But the overriding mood is one of maudlin self-pity on the part of the people she leaves behind *rather than of serious investigation* of the qualities she embodied.

Alastair Muir

Stephanie Lawrence

The musical direction of Ray Cook is, as usual, absolutely first rate, and some of Bill Byers's orchestrations do nothing but flatter the anonymous score they serve. But the evening as a whole does little honour to Monroe's fame and suffers from the fatal inability to make any resonant connection with the Mephistophelean Svengali who hovers above it. The point, perhaps, is that the camera was telling lies all along. And no one wants to make hit musicals out of the seduction of deceit. Or the deceit of seduction.

Romantic Comedy/Apollo

B. A. Young

I never heard anyone puncture his own play so neatly as Bernard Slade. "You take out all the charm and sentiment, and substitute jokes," says one of his characters, and this is just what he has done.

The simple story tells of the fluctuating love between successful playwright Jason Carmichael and his collaborator Phoebe Craddock. Jason, played by Tom Conti through a small but pleasant range, takes on Phoebe to replace his former partner when she shows him her first play. "You don't know how to construct a scene, and your dialogue is stilted," he tells her, and clinches with her at once. Is he in love? Certainly he doesn't say so for another seven scenes, encompassing 13 years, during which he gets married to a politically-ambitious wife and has two children. True, he goes to bed with her twice, but it doesn't go very well either time.

Phoebe, to tell the truth, is a buffoon. Whe we first see her, she is wearing a blue tam o' shanter on the side of her head, and Pauline Collins makes her look as innocent and juvenile as she was in the advertising agency in *The Happy Apple*—until you see the firm muscles round her mouth, that belong to the Vermont schoolteacher she really is. She is given curious personal habits, either by Mr Slade or Michael Attenborough, the director, to ensure that we never take her *seriously until* the last moment. And even then there is no sign that she has grown up.

Jason has funny ways too, like shouting to himself that he has never been so embarrassed in his life, and jumping up and down to prove it until someone —Phoebe, of course—comes in to embarrass him still more. For Mr Slade is determined to keep us laughing, by hook or by crook. "Would you like a drink?" "Please." "Scotch?" "It doesn't matter, I don't drink." Jason's wife Allison (Valerie Holliman) and his agent Blanche (Jan Holden) don't get funny lines like these, but in spite of their respective functions, they are unimportant people.

Well, quite a lof of the jokes are funny in the familiar pattern of Broadway comedy, and the playing is enjoyable, and Joe Vanek's set is handsome enough, though I couldn't believe that a successful writer would have nothing on his bookshelves but lines and lines of old uniform editions of what look like the classics, and not a sign of current writing, not even a few reference books.

Opera in America

Andrew Porter finds a Handel the world has been waiting for

Nicholas McGegan — well-known in London for playing Philidor's defence in a series of four productions—is now artist-in-residence at Washington University in St Louis, Missouri, and there he has just put on a production of Handel's *Orlando* such as the world has been waiting for. Scenically, it's at the opposite pole from the space-age *Orlando* that the young genius Peter Sellars staged in Cambridge, Mass., a year ago. But the poles are joined by an axis of belief that Handel is a great composer and dramatist whose operas don't need cutting or shuffling. Have any big-house Handel productions lain on *that axis? In* Ottawa's *Rinaldo* last year, which comes to the Met next season, only 14 of the 31 arias were done complete: in the New York City Opera's *Cesare*, only three of the 31.

Both directors proceed in the further belief that the composer's scenic instructions should be fully observed. When Zoroaster waved his wand in Act 1, a fountain duly popped up to conceal Medoro—but in Cambridge it was a modern steel drinking-fountain complete with Dixie cups; in St. Louis, a Baroque affair with glistering *tinsel jets*. At the end of Act 2, Orlando was borne skywards by, respectively, a space rocket and a swan-drawn chariot. Both directors eschewed verismo in favour of boldly formalised *movement* and gesture; but where Mr McGegan sought to animate the old prints and enact the 18th-century thespian manuals, Mr Sellars used modern analogues with a repertory drawn from muscle-beach poses for heroism, scatty finger-snapping for frivolity, and so on.

Mr McGegan's *Orlando* is the most complete and integrate essay in Baroque reconstruction I have encountered. The stage is lit by a warm glow of simulated candlelight. The sets, designed by Scott Blake, a junior student from Tennessee, are wings in painted perspective before a backcloth. Because the stage has no side space, they move vertically, not horizontally, but the effect of one scene swiftly concealing or revealing another is recreated. The band, 24-strong, including three harpsichords, and assembled from the Toronto ensemble Tafelmusik and the university's Collegium, is not plunged into a modern pit but is disposed as in the old prints. The continuo and obligato players can see and hear and take their cues directly from the singers. Mr McGegan presides at the central harpsichord. Pitch is A 415, a semitone below screwed-up modern sonority. The players are virtuosos, and the beauty, eloquence, and variety of Handel's scoring is revealed as it never can be by a modern orchestra.

Castratos, Winton Dean remarks in his *Handel and the Opera Seria*, are just about the one facility than an American university cannot provide. Orlando, a Senesino role, is sung by the young New York countertenor Drew Minter. Like Senesino in Quantz's account of him, Mr Minter has a clear, sweet, and equal alto voice, a masterly manner of singing, and an excellent shake. He is affecting in slow music (Orlando's "Già l'ebro mio ciglio," with the two *violette marine* lines played on viola d'amore and muted viola, was breathtakingly lovely), and accurate and astonishing in airs of parade and in cadenzas. Unlike Senesino, he is not powerful—although he easily filled the 650-seat university theatre—and not majestic of figure or porcine of feature but, rather, graceful and comely. He executed the vividly and startlingly mannered action Mr McGegan had taught his cast with a commitment and conviction that made it seem the music's natural counterpart.

Sally Bradshaw, who took part in those Philidor productions, was a charming Dorinda. Christine Armistead was Angelica, Deborah Harrison the Medoro, and Nicholas Solomon the Zoroaster. All had light, clear, fluent voices and were stylyishly eloquent (a few odd patches of impurity or imperfect intonation notwithstanding).

Musically, *Orlando* is one of Handel's richest operas. Dramatically and emotionally, it treads love's mazes with psychological precision, delicacy, and passion. Theatrically, it can be —and here was—a delightful adventure for the senses. Our professional companies still have have much to learn about Handel. (The City Opera has announced an *Alcina*, produced by Andrei Serban, for next season.) I trust that the lessons taught by this uncut *Orlando* (which lasted less than three and a half hours) will not be lost on them.

★

Denis Vaughan has made his New York debut conducting the Juilliard American Opera Center's production of Bellini's *I Capuleti*. The show lacked brio—like every *Capuleti* I have heard except Sarah Caldwell's. Maazel, Abbado, Patanè, Eve *Queler* — *Cossotto*, *Pavarotti*, Janet Baker—all failed to throw the sentimental scenes into relief by investing the vigorous scenes with the flash and fire that Wagner admired in Schröder-Devrient, and London admired in Johanna Wagner. *I Capuleti* is not late Bellini. It wilts if the early-Bellini energy, violence even, is not responded to.

★

The Met has revived *Don Carlos* (still in Italian translation) with its drab unit-set decor somewhat revised and enriched. Mirella Freni returns to the company after 15 years away. Like Renata Scotto, she is a lyric soprano who has pushed a sweet, pure voice into heavier repertory. Unlike Scotto, she has not become strident, but the limpid, dulcet quality that still her informed her Elizabeth for Karajan (Salzburg, 1975) and for Abbado (La Scala, 1977) was now absent. Her singing was *accurate but it lacked amplitude*. It sounded tense. She is no tragic actress—a dignified doll of a Queen, rather. After "Tu che la vanità," she acknowledged thunderous applause and blew a kiss at the conductor.

The audience had evidently come to hear the famous singers — Frenin, Grace Bumbry, Placido Domingo (who was ill, however, and replaced by Ermanno Mauro), Nicolai Ghiaurov—and not Verdi's noblest opera. Bumbry belted. Ghiaurov tried to. Mauro had ringing, ardent high notes (the voice has grown much since *his comprimario days at* Covent Garden). Louis Quilico was a reach-me-down Rodrigo. James Levine, conducting, treated the piece as more than a vocal circus, but his elevated approach was executed with too monotonously energetic and unsupple a beat.

Peter Schaufuss/Covent Garden

Clement Crisp

La fille mal gardée has not been seen at the Opera House for over two years. On Friday night it burst onto the stage like a puppy let out after being too long confined: there was an air of scampering, dashing-about eagerness which substituted vivacity for humour, and energy for style. Tails were frantically wagged, and there seemed too little of that innocent pastoral humour, that sense of a love-story told as a truthful Molièresque comedy, which has usually been the Royal Ballet's way. Yet on its own exuberantly jovial terms, the performanc had vitality of a hectic, anything-for-a-laugh kind.

Lesley Collier is a Lise of great technical resource. No choreographic demands can disconcert her, and it is well within her powers to display that sweet and unforced ease which was Nerina's (Nerina, like Galli Curci, made coloratura a natural and happy expression of feeling), instead of the brilliant-cut bravura she used on this occasion. Peter Schaufuss, a guest artist, is to repeat the "double" he brought off when the National Ballet of Canada danced *Fille* at Covent Garden in 1979, by appearing as Alain as well as Colas.

His view of the hero is built on quick, light dynamic and quick light, dramatics: his speed in the corn-field solos, the clarity of his dancing and the detail of his playing are always happy, alert. But the interpretation which remains *the yardstick for the production* is, significantly, that of Leslie Edwards in his created role of Thomas. Around him characterisations (and, I dare hazard, choreographic nuances) have been distorted, tricked out with extra effects and appeals to the audience to laugh at comic capers, as if the cast did not trust the *original* text.

Mr Edwards pursues the path of sincerity, with humour springing directly from character—and how funny and credible he is as he watches Alain's first-scene solo. Ashtonian style is thereby respected and the portrait remains what it always was: fresh, endearing and oddly true.

One other survivor from the first production is far from fresh: the front-cloth is creased and cracked, and urgently needs repainting.

Finally, an apology to the cast of *A Wedding Bouquet*. In a recent notice, I queried the fact that the Bride now whispers a little secret to the Groom. Two eminent members of the original cast have put me right, adding: "Don't you remember Helpmann's expression when he heard the news?" I should have remembered but did not. *mea culpa*.

Arts Guide

Music/Monday. Opera and Ballet/Tuesday. Theatre/Wednesday. Exhibitions/Thursday. A selective guide to all the Arts appears each Friday.

March 18–24

Music

LONDON

London Philharmonic Orchestra conductor Hugh Wolff, Rostropovich cello: Mendelssohn, Berlioz, Dvorak (Mon) Royal Festival Hall (928 3191).

Philharmonia Orchestra, Tilson Thomas conductor, Yo Yo Ma cello: Mussorgsky, Berlioz, Shostakovich (Tue); Royal Festival Hall.

London Symphony Orchestra, Claudio Abbado conductor, Yuzuko Horigome violin: Stravinsky, Sibelius, Strauss (Tue, Thur). Barbican (638 8891).

Czech Philharmonic Orchestra, Vaclav Neumann conductor, Vaclav Hudecek violin: Janacek, Sibelius, Dvorak (Wed), Royal Festival Hall (928 3191).

English Chamber Orchestra, Yehudi Menuhin conductor. Thea King clarinet in all-Mozart programme (Wed) Barbican (638 8891).

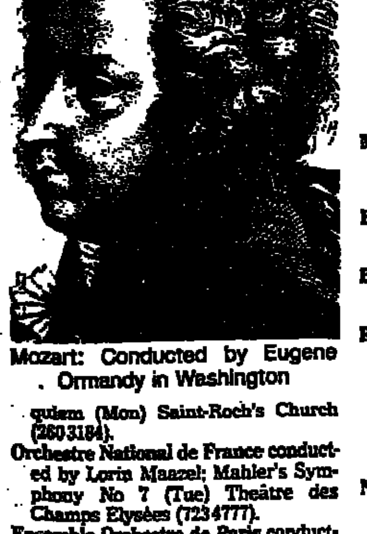
Ronnie Scott's Frith St. W.1: Drummer Buddy Rich and his orchestra till March 26 (two separate shows nightly).

PARIS

Giuseppe Taddei's recital (Mon) Theâtre de l'Athenée (742 6727).

Nouvel Orchestre Philharmonique conducted by Yan-Pascal Tortelier; Catherine Cantin, flute, Jean-Louis Gilles, organ: Handel, Boccherini (Mon) TMP-Chatelet (261 1963).

Ensemble Orchestral de Paris conducted by Jean-Pierre Wallez: Faure's Mass for three female voices and organ, Cantique and Requiem (Mon) Saint-Roch's Church (260 3184).



Mozart: Conducted by Eugene Ormandy in Washington

Orchestre National de France conducted by Lorin Maazel: Mahler's Symphony No 7 (Tue) Theâtre des Champs Elysées (723 4777).

Ensemble Orchestra de Paris conducted by Jean-Pierre Wallez: Haydn, Mozart, Mendelssohn (Tue) Salle Gaveau (563 2030).

Youri Boukoff recital: Chopin, Liszt, Schumann (Wed) Theâtre des Champs Elysées (723 4777).

Georges Pludermacher, piano. Herve le Floch, violin: Brahms, Bartok and Franck's Sonatas (Wed 8.30 pm). Opera Comique (296 0611).

Wiener Nonett: Mozart, Beethoven, Spohr (Thur) Theâtre des Champs Elysées (723 4777).

Nouvel Orchestre Philharmonique conducted by Gian-Luigi Gelmetti with Faye Robinson, Alberto Cupido, Malcolm Smith and the Radio France Choir: Donizetti's Miserere, Puccini's Missa di Gloria (Thur) Saint-Germain-des-Prés Church (260 3184).

WEST GERMANY

Munich, Herkulessaal der Residenz: Pinchas Zukerman and Marc Neikrug (Mon), piano recital with Martha Argerich (Wed).

Berlin Opera: lieder recital with Gundula Janowitz; Brahms and Hugo Wolf (Mon).

Berlin Philharmonie: Alfred Brendel piano recital, Beethoven Sonatas (Thurs).

Frankfurt Alte Oper: Italian Radio and Television Orchestra Torino, conducted by Gary Bertini, pianist Bruno Leonardo Gelber: Mozart, Mahler (Sat).

NEW YORK

New York Philharmonic conducted by Larry Newland, with Alicia de Larrocha, piano. All-Beethoven programme (Tue); Rafeael Kublik conducting with Richard Brunner tenor, Richard Cassilly tenor, John Cheek bass. Janacek: From the House of the Dead, U.S. premiere in *new translation with Yvetak Synek* Graff and Robert T. Jones (Thur). Avery Fisher Hall (874 2424).

Lenox Music Theater Group, directed by Stanley Silverman. Virgil Thomson and Gertrude Stein: The Mother of Us All. St Clements (46th w. of 9th Av. 924 3108).

WASHINGTON

National Symphony conducted by Eugene Ormandy. Beethoven, Mozart, Rachmaninoff (Tue, Thur). Concert Hall, Kennedy Center (254 3776).

CHICAGO

Chicago Symphony conducted by Sir Georg Solti with Kiri Te Kanawa soprano. Duparc. Mahler (Wed, Thur). Orchestra Hall (435 8122).

VIENNA

Musikverein (658 190): Vienna Philharmonic, conductor Riccardo Muti. Mozart, Ravel, Honegger (Sat, Sun), Tom Krause, lieder recital: R. Strauss, Ravel, Sibelius, Mahler (Sat), Vienna Symphony Orchestra, conductor Christoph von Dohnanyi. Mozart, von Einem, R. Strauss. Soloists: Elena and Emil Gilels (Wed, Thurs).

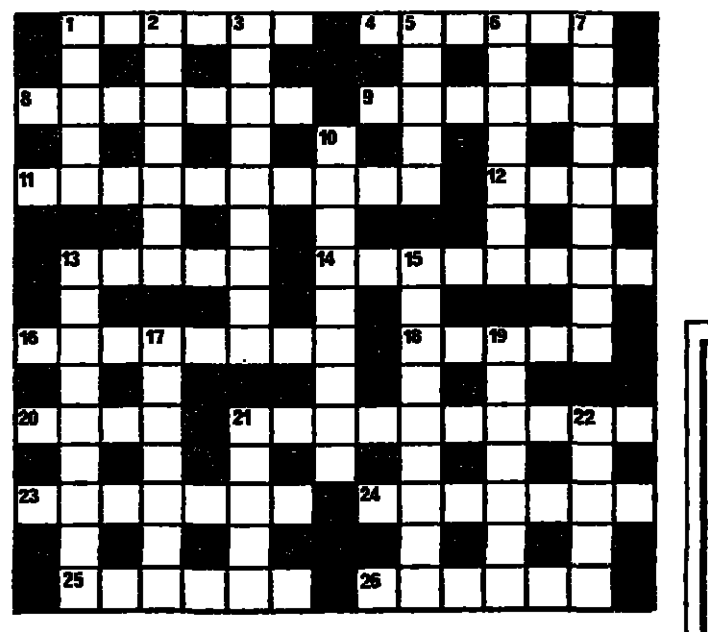
Konzerthaus (721 211): The Consort of Ancient Music, conductor Christopher Hogwood. Stamitz, W. Schiedl, J. C. Bach, Haydn (Wed).

Linz, Brucknerhaus: Vienna Philharmonic, conductor Riccardo Muti. Mozart, Honegger, Ravel (Fri), Alban Berg Quartet. Mozart, Beethoven, von Zemlinsky (Tues).

ZURICH

Tonhalle: Tonhall Orchestra, conductor Weikert with Zimmermann, violin; Strauss, Mendelssohn violin concerto, Schumann (Tue, Wed, Thur).

F.T. CROSSWORD PUZZLE No. 5,127



ACROSS

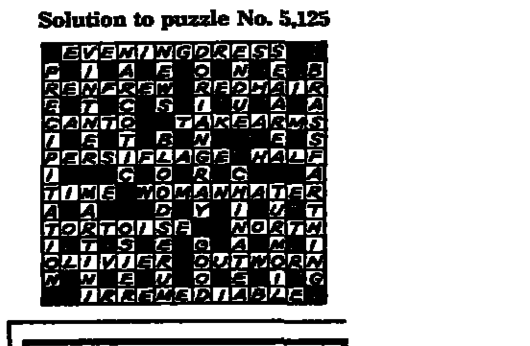
1 Press for identity documents? (6)
4 A sweet's round and in layers (6)
8 Work in the theatre? (7)
9 Tramp might have been a priest (7)
11 Surprise someone more than they can say? (6, 4)
12 Love a note repeatedly played in the orchestra (4)
13 Substantial figure (5)
14 Homely doctor? (8)
16 Send St Martin the wrong way (8)
18 Well salted (5)
20 Pool giving pleasure to many (4)
21 A singular display of musical virtuosity (3-3, 4)
23 Time taken by a secretary (7)
24 Self-praise when times go badly (7)
25 Joke about money results in punishment at university (6)
26 It checks the growth of population (6)

DOWN

1 Bird seed needs it (5)
2 Not just relating to some (7)
3 Dutch city bank headed by a rascal (9)
5 Feverish activity in temples? (5)
6 State North of the border, down Mexico way (7)
7 Went without saying (9)
10 He gets browned off doing nothing (9)
13 Out in spring (9)
15 Figure about a hundred get involved (9)
17 Certainly bound to be different (2, 5)
19 Discounts are best taken advantage of (7)
21 A once-rough sea (5)
22 They may be held in revulsion (5)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

Solution to puzzle No. 5,125



FINANCIAL TIMES
BRACKEN HOUSE, CANNON STREET, LONDON EC4P 4BY
Telegrams: Finantimo, London PS4. Telex: 8954871
Telephone: 01-248 8000

Monday March 21 1983

Politics break EMS bounds

NEVER in the four-year history of the *European Monetary System* have the constraints and aims of the system been at such odds with political realities as they were over this weekend. The result is that while a broad-based desire, and even a blue-print of new parities, for the next phase of EMS was evident in Brussels yesterday, these have not been formalised. The seven EMS currencies will effectively be floating freely against one another on the exchanges this morning, and the future of the EMS hangs in the balance.

On the one hand there is the relatively *new West German* conservative Government. It has just come through Federal and State elections and is still in the process of cabinet building—all activities which are not conducive to international awareness and sensicivity. Herr Gerhard Stoltenberg, the Finance Miinster, has no experience of the consultations and *give-and-take that go into an* EMS parity re-alignment: the resulting German stance has had an aloofness which Paris has found aggravating.

On the other hand there is France's Socialist-Communist Government in a state of flux. The pressure on the franc in th foreign exchange markets and the rightwards swing in the first round of the recent municipal elections pointed towards a Government reshuffle and another package of stabilising economic measures.

Both emphasise a continuing commitment to reduce French inflation and current account deficit. But then the French left rallied in the second round of the municipal elections and this raised the prospect that the next package might be the one that broke the coalition's back.

Wrangling

After a fortnight when the predicted post-election pressures in the EMS were astutedly handled by the European central banks, these pre-occupations of the two Governments have led to harsh wrangling. The point of contention has been: should the French franc move down or should the D-Mark move up?

On the face of it this is a faintly ludicrous dispute. The two currencies dominate a system which floats against all the other currencies of the world. However, they describe their mutual re-alignment will not greatly change their resultant floating exchange rates vis-a-vis these other currencies.

The dispute masks a deeper argument which is as old as the *EMS itself*: when *pressure* builds up on the system, on whom should the onus of adjustment lie? The West Germans have always tended to believe that the weakest member should put *its house in order. The* French have been inclined to argue that convergence should cut both ways. One point in their favour in the present tension is that the so-called "divergence indicator" of the EMS currently points firmly at the D-mark as the currency which is out of line.

Perilous

In this game of pre-realignment poker the big card — withdrawal from the system — has been brandished as never before. M Jacques Delors, France's Finance Minister, has threatened it and the threat is taken very seriously by top officials in West Germany who describe it not only as a threat *to the EMS* but to the EEC itself. It would indeed be a perilous course for the French to adopt: it would be an invitation to international investors to abandon the franc and it might lead France to take further protectionist measures, inconsistent with EEC membership.

Ever since the French Government took a political and economic tack that was at cross-purposes with West Germany's the original grand design of the EMS has been doomed. Economic and monetary *union in Europe is now* barely talked about. The second phase of the development of EMS has been put into cold storage of indefinite duration. What is left today is little more than a form of "crawling peg" system to reduce the volatility of movements between European currencies.

Yet three points argue in favour in France staying in the EMS. First, it has prompted the West Germans to lower their interest rates by more than they would have otherwise—the constraints of the EMS are not entirely in the direction of deflation. Secondly, the British Labour Government learnt in 1976 that free market movements can overturn Socialist ambitions as cruelyl as any fixed-rate system. Finally, 10 years of floating exchange rates has proved an uncomfortable experience for world trade and investment. The trend of the moment is to seek ways in which national economic policies can be co-ordinated and exchange rate volatility reduced.

The rebuilding of BL

AT THE beginning of 1981, Sir Michael Edwardes then chairman of BL, persuaded a reluctant British Government to support a recovery plan which required another £990m in funds from the taxpayer. Sir Michael's case was that, through reductions in fixed costs, improvement in productivity, and investment in new models BL could be viable by 1984. He resisted pressure to make privatisation the top priority, arguing that the sale of companies such as Jaguar or Land-Rover, even if it were feasible, would damage the main business.

Since then, drastic action has been taken to lose surplus capacity, and to reduce manpower. Labour relations and productivity have greatly improved; output per man in the cars group rose by over 20 per cent last year. The introduction of the Maestro (to be followed next year by the slightly larger LM11) strengthens BL's position in the medium-size sector of the market. Externally *the fall of the pound against* the dollar and continental currencies has brought a much needed boost to export profitability.

Partnership

All this is positive. But BL is by no means out of the woods. Preliminary results for 1982, have just been announced, showing a pretax loss of £223m, compared with a loss of £333m in 1981. Last year was a difficult one for the world motor industry; several of BL's leading European rivals also reported large losses. But some of BL's underlying problems—its relatively small-scale production, its weak market position on the continent—are still not fully solved.

BL Cars has sought to offset its small size by buying some key components such as gearboxes from outside high volume suppliers and by the partnership with Honda of Japan. The first step was the Acclaim, a Japanese car made under licence in the UK. This is to be followed by the new XX Car, jointly developed by the two companies,

But although the Honda relationship should be extremely valuable, BL needs to push up the volume of its home grown models—Mini, Metro, Maestro and their derivitives so that the capacity of the Longbridge and Cowley assembly plants is more fully utilised. Even with extensive collaboration on components the current annual volume of less than 500,000 cars is too small for the market in which BL aims to compete.

Some of these arguments also apply to the truck side which has been hit hard over the past two years by a lack of competitive models and by the collapse of the domestic market. The model weaknesses are *being corrected and some important* collaboration agreements have been signed. But a great deal more needs to be done if Leyland is to re-establish itself as a profitable international manufacturer of a full range of commercial vehicles.

First step

Access to Government funds is *likely to end next year. No* doubt various ways of bringing in private capital are being examined. A useful first step might be to establish the two parts of the business—the cars group and the *Land-Rover-Leyland* group—as separate companies each of which could work out its own salvation. In any case, now that the core of BL—volume cars—is in better *shape*, the *management* can afford to take a more open-minded approach to privatisation. The manufacturing and marketing links between say, Jaguar and Austin-Rover, or between *Land-Rover and Leyland* Trucks, are not so close as to rule out at least a partial separation of ownership.

Moves towards privatisation should be seen not as a political *directive*, but *as part of a* coherant commercial strategy. They should not be allowed to distract management from the main task of making the business more efficient. If the progress of the past three years can be maintained and if the new models are successful, there is a chance that this particular "lame duck" will fly again under its own power.

WORLD MOTORCYCLE INDUSTRY

The crisis facing Japan

By John Griffiths

JAPAN'S world-dominating motorcycle industry has developed a slow puncture. And it is getting worse, despite the industry's increasingly frenzied attempts to pump fresh life into the world's markets.

Particularly in the developed countries these markets are shrinking irrespective of a glittering array of new models and technological innovation emerging from Japan at an ever-faster rate.

Suzuki, Yamaha and Kawasaki have been bringing out new models at the rate of roughly one a month; Honda, the industry's giant, almost one a week.

However, the world outside *Japan itself*—the only developed market where sales were increasing rapidly until very recently—is proving incapable of absorbing them.

Industry estimates of world *stocks* of unsold motor-cycles, scooters and mopeds now range as high as 4m, with some 25 per cent of those languishing in warehouses in the U.S. alone. On a U.S. market for all types of powered two-wheelers of 700,000 units last year, that represents nearly 18 months' supplies—given an expected further market contraction in *1983*.

A problem of similar proportions has developed over the past 12 months in Europe. And Dr Eberhard Sarfert, chairman of BMW motor-cycles, forecasts a sales drop of about 10 per cent in all the main markets this year.

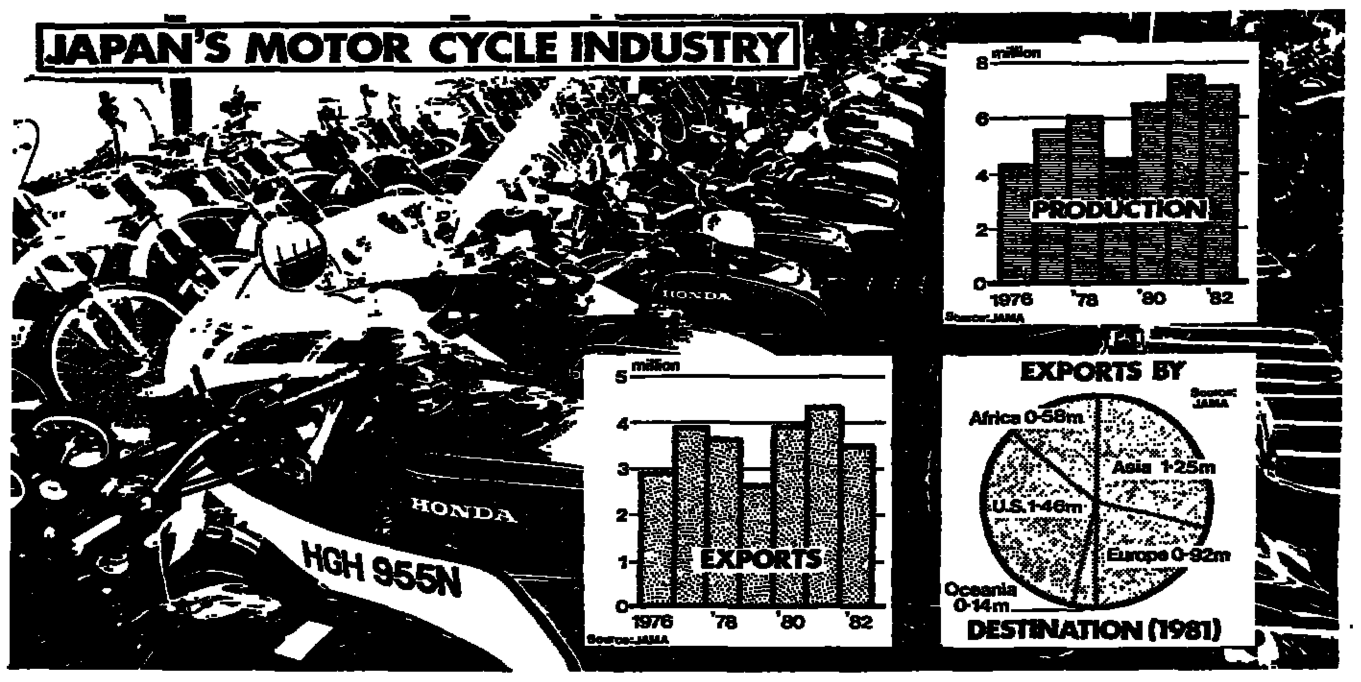
Global recession and mounting unemployment, particularly *among the young, are the main* reasons. Sales of motorcycles proper are heavily concentrated in the 16-24 age group, a sector whose spending power has been badly hit. And while mopeds have fared rather better and there are signs of a resurgence of the motor scooter, rising fuel prices have not caused a switch to economical two-wheelers to anything like the degree hoped.

Yet as late as the middle of last year, the Japanese producers, who account for about 65 per cent of world output, were publicly clinging to the belief that they would build 10m machines in 1982—a 25 per cent increase from a year earlier.

The result is a fast-gathering crisis for the Japanese industry; one created not so much by shrinking markets as by its own over-production, based on exaggerated expectations of growth.

Even now, despite sharp second-half cutbacks which led to 1982's actual production reaching only 7.06m, the Japanese industry appears reluctant to accept that it may be facing the prospect of the first prolonged check to an expansion which has been sustained for nearly two decades, interrupted only briefly by the 1974 oil crisis.

It is this attitude which lies behind the proliferation of new models, yet which carries the risk of increasing investment for diminishing returns. This is already starting to show up in company results: the motorcycle operations of Kawasaki Heavy Industries group are mainly responsible for it omitting a dividend this year for the first time for 30 years.



Graham Lever

Were it not for its domestic market, where there has been a boom in scooters, the Japanese industry's difficulties would be even greater. Here at least domestic sales until October were running well ahead of the levels in 1981, when a total of 3.06m units were sold.

Honda's new model and market muscle gave it a 33 per cent increase in domestic unit sales until October, to 1.19m units. But even the benefit of a depreciating yen could not prevent the value of export sales dropping as overseas sales fell by 13.5 per cent, to 1.44m.

Suzuki's first-half export sales have slipped by 31 per cent; pretax profits by 26.5 per cent.

Thus the pressures on the Japanese to find ways of disposing of existing stocks and sustaining existing markets are enormous—the entire industry has been built on the basis of high-volume plants operating close to capacity.

In every market which the Japanese have entered since *the early 1960s, the strategy* has been the same. Using the economies of scale already achieved in their domestic market, they identified the most valuable market segments and developed the marketing networks and products necessary to gain significant shares of them—irrespective of short-term cost. Annual sales targets were set, based on assumptions about market penetration and market growth. And if it meant cutting prices, or bringing out new models, meeting the sales targets took top priority.

It has been a devastatingly succesful strategy, wiping out the once-world leading UK motorcycle industry along the way as the Japanese makers moved from small machines into all sectors of the market.

The trouble is, it is no longer working.

Moreover, the Japanese manufacturers' tactics of very heavy discounting to shift the stock mountain has rapidly heightened trade tension with countries like the U.S., West Germany and Italy where sizeable *indigenous manufacture still* exists.

Early next month, President Reagan will pass judgment on a U.S. International Trade Commission (ITC) recommendation that import tariffs on 700-cc-plus machines should be raised immediately from 4.4 to 49.4 per cent, to be reduced gradually over the following *four* years.

The aim is to give a breathing space to Harley-Davidson, the only remaining U.S. manufacturer. Like most of the rest of the developed world's motorcycle industry, Harley has been ridden into a corner by Japanese competition. Once the U.S. big-bike market leader, its share of over-700 cc sales has slumped to 14 per cent. It has cut its workforce by 40 per cent, invested $25m in improving efficiency—and is running out of ideas on how to trim costs further. Yet its famous "hogs" still sell at up to $2,000 more than the Japanese competition.

Given its higher cost base and falling total sales in the U.S., *Harley argues, it has little* chance of surviving to bring vital new models on-stream without some form of protection.

That, however, leaves European manufacturers caught in the cross-fire. Barely surviving the Japanese onslaught in their own market, they still cling to about 1.5 per cent of the U.S. *big bike market—and it is the* largest in the world.

In its ITC submissions, Harley said it did not consider the Europeans a threat. But that is of little consolation to companies like BMW of West Germany, Moto Guzzi of Italy, or the struggling Meriden co-operative in the UK, which is estimated to be making less than 4,000 Triumph motorcycles a year.

Faced with the same kind of cost pressures *vis-à-vis* Japan as Harley-Davidson, they too would become subject to the tariff measures, with a potentially disastrous impact on sales in one of their most valuable markets.

BMW has refused to enter a discounting war, but says it is retaining its 4 per cent share of the West German motor-cycle market—the Japanese makers have 78 per cent—only through strong customer loyalty and a particularly comprehensive European service network.

So in Europe, too, the pressures are mounting for Japanese restraint. In informal talks with Tokyo, the EEC Commission has already indicated that unless imports are moderated, the Japanese makers could face further unilateral action by individual member states.

Barriers already exist against Japanese moped imports in France, where they are restricted to 5 per cent of the market. (France does not make motorcycles proper). In the past, the restrictions have been the main factor allowing Cycles Peugeot and Motobecane to keep an 80 per cent share of the total powered two-wheeler market of just under ½m units. But the market has shrunk drastically from about 1.4m *eight years ago—mainly because* of legislative changes — and Motobecane is now in trouble. It is expected to file for bankruptcy, blaming slack domestic sales and fierce (Japanese) competition in the 80 markets to which it exports.

In Italy, where Piaggio remains the world's fourth-largest producer — admittedly *mainly making* scooters and mopeds—a quota system for years has confined imports of Japanese machines below 380 cc to 1,200 a year.

But Italy has never got round to restraining imports of machines above 380 cc, a sector where it is unique in retaining a cluster of higher performance motorcycle manufacturers with famous names such as Moto Guzzi, Laverda, Ducati and Gilera.

It is the sector Japan's makers left to last, but where they are now making inexorable inroads. They now account for an estimated 40 per cent of the business.

BMW's Dr Sarfert warns that the world stockpile of machines is so large that even dramatically reduced prices may not be enough to dispose of it altogether—and prices are already down by up to 30 per cent. The German company itself has plans, announced in 1981, almost to double capacity at the West Berlin plant to 60,000 units a year by the mid-1980s and introduce high technology transfer lines, robots and computerised assembly systems. These plans are still going ahead, in the belief that BMW's special cachet at the premium end of the market will allow it to capture a bigger share of the 5 per cent annual growth which it thinks may be possible after the recession ends.

While BMW acknowledged that, on the surface, consumers were benefiting from heavy discounting, it said the knock-on effects were an erosion of dealers' ability to invest in parts and service back-up and rising parts prices, which in turn would raise insurance premiums and accelerate the depreciation of used machines.

The UK provides an illustration of this process at work. There have been cuts on official "list" prices of close to 30 per cent; 1981 and early 1982 were marked by bitter clashes between market leader Honda and its dealers. The latter claimed their expensive investments in service and parts were being undermined through machines finding their way to unfranchised "pirate" outlets, and new franchised dealers being allowed to set up on their doorsteps—all in pursuit of cutting stocks by any means.

Perhaps with protectionist pressures in mind, the Japanese makers have begun building more manufacturing or *assembly links* with Europe.

As a way of circumventing quotas, Honda has had a plant in Italy for some years.

Cycles Peugeot, which produces about 400,000 mopeds and lightweight 125 cc motorcycles a year, is also to collaborate with Honda on scooters; Yamaha has devised a now uncertain joint moped and 50 cc motor-*cycle development* agreement with Motobecane, and another for scooters with Nurembergе Hercules Werke of West Germany; Suzuki is licensing Steyr-Daimler-Puch of Austria to make scooters.

It remains to be seen whether these moves will enable the Japanese makers to stem protectionist sentiment. But the importance of exports to the Japanese can hardly be overstated, since they account for about 60 per cent of total sales and have fallen from 4.36m units in 1981 to 3.5m last year.

Only one thing is certain: the customers are having a field day.

WHO MAKES WHAT

(principal manufacturers)

	Products	Output (1981)
Honda	50cc moped to 1,000cc—plus 'superbikes'	2.92m
Yamaha	50cc mopeds to superbikes	2.49m
Suzuki	" "	" 1.53m
Kawasaki	over-50cc motorcycles, mainly large capacity machines up to 1300cc	0.46m
Piaggio (Italy)	some motorcycles, mainly scooters and mopeds	0.95m
Cycles Peugeot (France)	mopeds, some 125 cc motorcycles	0.4m
Steyr-Daimler-Puch (Austria)	mopeds	125,000
BMW (W. Germany)	450cc to 1,000 cc motorcycles; but possibly smaller machines from 1984	31,000
Harley-Davidson (U.S.)	750cc-plus motorcycles	35,000

Source: FT estimates

Men & Matters

Bank rates

Robin Leigh-Pemberton, National Westminster chairman, and Governor-designate of the Bank of England, has raised a few eyebrows in Whitehall by his behaviour during this year's pay negotiations for the 170,000 *clerical staff employed by the* five main English clearing banks.

It has reached the ears of key policymakers that Leigh-Pemberton has been taking a soft line, unlike his opposite numbers at Barclays and Midland. Is this, the mandarins have asked, a responsible attitude for the future official guardian of the gate against inflation?

Leigh-Pemberton was Mrs Thatcher's personal choice as Governor, and there is nothing she hates more than any hint *that the banks might use their* large profits to pay salary increases at levels to undermine the government's wages strategy.

The affair has caused great amusement in the corridors of power. But on the figures available the criticisms are perhaps unfair.

The Federation of London Clearing Bank Employers' final offer is 4.75 per cent—which is towards the bottom of the 4.5 per cent to 7.5 per cent range in which pay settlements have generally been running in early 1983.

No one, not even NatWest, is thought to have suggested going above 5 per cent within the federation—which, on pay matters, ultimately takes its instructions from the bank chairmen.

Chair lift

Much speculation in Hong Kong surrounds the future occupancy of the Taipan's chair at Jardine, Matheson—once the colony's mightiest trading house, now a less dominant but still powerful institution.

Last year, Simon Keswick—younger brother of former Jardine chairman Henry Keswick—was made joint managing director. Many-tongued rumour has been suggesting in recent weeks that the Keswick clan might be pushing Simon's succession to the chairmanship, presently held by David Newbigging, second generation company man but not "of the blood."

While conflicting stories abound, one veteran handicapper *says "the stable money is* on Simon—but in about 18 months or so"

Shipshape

Seatrade's cover designers have dreamed up a sci-fi vision of the future for shipping. On the March cover a bright red freighter, more like a space ship than a seagoing vessel, prepares to sail across a glassy ocean.

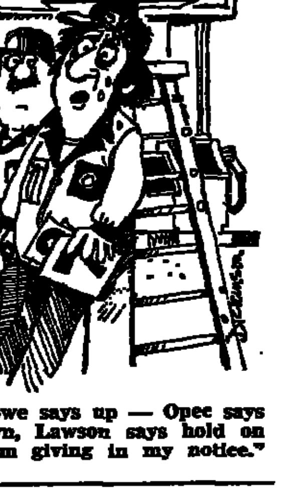
But the preoccupations of its founder, Themistocles Vokos, are down to earth and businesslike this week as Expoship, London's first big world shipping exhibition, opens in the landlocked fastness of the Barbican. It is being organised by Seatrade.

Vokos, a trim and voluble 44, has built up an empire in publishing exhibitions and management education since he hit on the idea of Seatrade some 12 years ago. Before that he had been a journalist on his father's Greek shipping paper.

Britain's maritime bodies are sponsoring the show and some 15,000 visitors are expected including top shipping officials from the U.S., Norway, Greece and China. With a nice sense of timing Vokos has just brought out the first edition of Maritime China, a Chinese and English language quarterly.

Early riser

Working in Downing Street for Mrs Thatcher has proved to be a good promotion route for civil servants, not least because she likes to have familiar officials in posts involving sensitive policy issues.



"Howe says up — Opec says down, Lawson says hold on —I'm giving in my notice."

Clive Whitemore moved from being principal private secretary recently to become permanent secretary at the Ministry of Defence. Now John Vereker has been promoted to be an under-secretary at the Overseas Development Administration at the young age of 38.

Vereker has had an unusual role at number ten. He was brought in three years ago to liaise with the Press office and to get a grip on pay policy after the memorable 22 per cent wage round.

His departure completes an almost complete reshuffle of the Prime Minister's official advisers apart from Bernard Ingham, her Press secretary. Vereker will be succeeded by Nicholas Owen, an assistant secretary from the Department of Industry, although the job definition may change.

Vereker's new job will cover *India, the Far East and the* Americas and Islands. That means, of course, the Falklands and the follow-up to the Shackleton report. He will need to apply all the political skills he learned in Downing Street.

Steady blow

The wind is free, and blows as and where it pleases, even in the Common Market. The chances of a standard strength Euro-wind being arranged for member nations, with the connivance of Brussels and the European parliament, seem quite remote.

But, undeterred by this quirk of nature, a member of the European Parliament, Danish Gaullist Kai Nyborg, wants the EEC to harmonise the community's windmills.

He is urging the European Commission to arrange for common technical standards for windmills to be drawn up "very rapidly."

Nyborg admits that he is motivated by trade considerations rather than any fear that some European Community member nations may be extracting more power from the available wind than others.

Thomas Megahy, the British Labour spokesman on legal affairs in the European Parliament, has been moved to complain: "We might now have the beginnings of a common windmill policy to equal the follies of the common agricultural policy."

But he admits: "The idea might be well received in the parliament for most of the members spend at lot of time tilting at windwills of one sort or another . . . and they generate a lot of wind themselves."

Observer

THE SIBERIAN TREASURE TROVE

A dazzling future, perhaps

By Anthony Robinson, recently in Yakutia

"WHY DO we not get the proper effect now from the huge capital investments, why are the achievements of science and technology being introduced at rates which do not satisfy us?"—Yuri Andropov, in February 1983 issue of Kommunist.

A definitive answer to Mr Andropov's rhetorical questions can be found in Siberia, the Soviet Union's raw material treasure trove and home of its biggest capital investments.

The problem is not only the appallingly difficult physical conditions of extracting Siberia's wealth. It is not only that recession in the West, lower world prices for energy, raw materials and precious metals and the sharp decline in major coal and steel-using industries have dented the earlier assumptions of steadily rising national and international demand for Siberia's huge but high-cost raw materials. It is also bureaucracy.

Siberia, the Soviet "Wild East," is being exploited no differently from the settled rest of the country—that is to say, with an enormous bureaucratic tail which forces costs up and productivity down.

The 'tyranny of climate and distance'

The seven-hour flight east from Moscow to Yakutsk, and the descent from a stuffy, crowded Aeroflot Tri-jet into the nostril-freezing minus 47 degrees of the Yakutsk tarmac *is a great introduction to the* "tyranny of climate and distance" which so strongly conditions the life and organisation of Siberia.

The first Russians, fur trappers and hunters, came here 350 years ago. The discovery of rich alluvial gold deposits and Kimberlite diamond pipes in the 1920s brought a fresh influx. Under Stalin, thousands *lost their lives as slave* labourers, ill-fed, badly housed in makeshift camps and dressed in rags in a land covered by permafrost where temperatures range from 35 centigrade in the short, insect-plagued summers and drop to minus 55 and below in the nine-month winter.

There are still camps tucked away in the recesses of this huge autonomous republic whose 3.1m square kilometres make it twice the size of Alaska.

Local authorities are reluctant to be reminded of Yakutia's chilling past and deny the continuing existence of forced labour camps. But a detachment of young, spotty internal security guard troops taking their weekly recreation in the Yakutsk steam bath, where steam escaping from broken windows has created grotesque ice stalagmites, is indication enough that even today not all come here voluntarily.

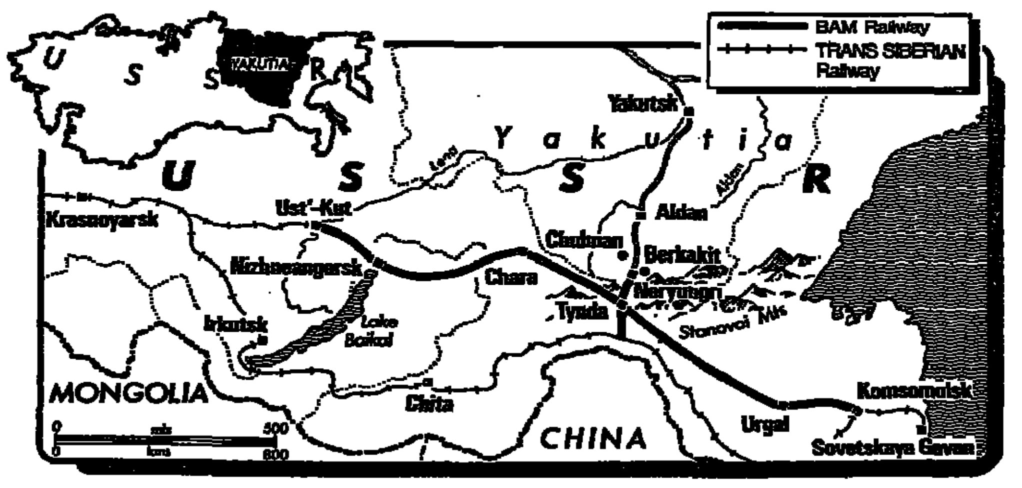
Roughly a third of Yakutia's 915,000 population are native Yakut, Evenk and other minority groups speaking variants of an old Turkic language. Local archaeologists says their ancestors contributed to the extinction of the mammoth and other animals whose butchered remains, preserved for over 13,000 years in permafrost refrigerators, are frequently discovered by geologists and prospectors mapping out Yakutia's fabulous natural wealth.

But the development of Yakutia in recent times has not been by natives or by slave labour, but by young workers attracted to the Republic by high pay and bonuses, a sense of adventure and pride in taking part in prestige development projects. The high priority accorded to the development of Yakutia has also attracted an impressive collection of tough, decisive and technically proficient project managers overseeing multi-bullion rouble projects like the Baikal-Amur (BAM) railroad and the Neryungri coal mine and en*richment plant* and electric power complexes.

Prefabricated housing, factories and all the infrastructure and support facilities for the new towns and settlements have sprung up where only forest tundra once spread to the endless horizon.

The key to the opening up of Yakutia's enormous natural wealth has been construction of the BAM railroad whose 3,300 kms length was originally scheduled for completion in 1982.

Like most other major Soviet construction projects, however, BAM has run into heavy cost overruns and delays. Some have been caused by the inherent logistical difficulties of supplying housing and equipment in a former wilderness without roads, criss-crossed by rivers and traversed in parts by geologically complex mountain ranges. Others have been caused by bureaucratic incompetence and the Soviet prediliction for according top priority to construction but neglecting adequate housing and other social facilities so that a high proportion of originally highly *motivated young workers quit* early.



Some 500 kms of BAM remain to be built and completion of the entire line from Ustkut, north and west of Lake Baikal, to Komsomolsk Na Amur, where it will join up to a spur of the existing trans-Siberian line, is now scheduled for the end of 1984.

In the long run, BAM will doubtless prove to be an indispensable and profitable investment linking the resources of Eastern Siberia, Yakutia and the Soviet Far East to the industries of Japan and the fast growing Pacific rim. But for the present BAM and associated infrastructure and resource developments represent a heavy drain on the Soviet economy whose repayment is likely to take longer than originally hoped.

It is easy to be dazzled by the potential of Eastern Siberia and Yakutia. The size and richness of energy and raw material deposits lend themselves to superlatives. They include 5bn tons of high-grade copper ore at Udokan and billions of tons of coal in reserves so widespread that virtually every test drill for oil and gas so far has come up with evidence of rich coal deposits as well.

Gas deposits of over 13,000bn cu metres lie in the Vilyusk and Lenski regions of south and central Yakutia and vast deposits of iron ore, manganese and virtually all other minerals known to man, as well as gold, diamonds and other precious *stones, and timber stretching to* the horizon in all directions.

Yakutia does not lack fervent advocates of a glorious industrial future. Mr Tommot Sivsev, the forceful native Yakut who is vice-chairman of the Yakutia planning committee speaks of ambitious schemes to expand the so-called "little BAM" from the Neryungri coal deposits north to Tommot and up to Yakutsk, the regional capital, in the next five year plan. He also believes that the combination of massive coal and iron ore deposits in close proximity both to rich gas fields and the BAM railway itself will eventually provide the basis for building south Yakutia into a major new Soviet metallurgical base, producing steels for extreme cold conditions and eventually non-ferrous smelting as well.

All these projects, and a now-shelved U.S.-Japanese-Soviet gas pipeline plan to transport 30bn cu metres of gas over 2,000 kilometres to the Pacific, remain for the future. The only major project actually to accompany the building of BAM is the Neryungri coal mining and enrichment project built with the help of A$450m Japanese loan which will supply 5m tons of high quality coking coal annually to Japan from 1985.

Other projects will surely follow. But ambitious future plans have to be measured against the fact that construction costs on permafrost are from 2.5 to four times higher than in the western part of the Soviet Union, that the average ratio of infrastructure cost to each new worker is 20,000 roubles and that attracting workers here requires bonuses, longer paid holidays and other benefits which often triple or quadruple basic pay in the western part.

All this would not be so serious if management of the Siberian projects were more *flexible*, but, in the words of Mr Ivan Pyanakov, First Secretary of the Neryungri city branch of the Communist Party, "bureaucracies have been springing up like mushrooms after the rain."

During the last five-year-plan period, he added in a recent article, "280 different institutions have appeared on the scene, each one requiring office space, a book keeper, a driver, a secretary and a messenger and all getting extra pay for working in the north and having to be assigned apartments."

Meanwhile workers with needed skills face the prospect of spending three to four years crowded together three to a room in a workers' hostel, subject to the discipline and regimentation of communal life after a hard day welding or building in temperatures three times colder than the average domestic freezer.

In an attempt to reduce the jungle of competing and conflicting bureaucracies which is the reality of the so-called planned economy, Yakutia has been organised as a "territorial industrial complex." The aim is to co-ordinate the dauntingly complex task of building railways, mines, power stations and infrastructure all at the same time.

In practice, however, one part of the bureaucracy seldom seems to know what the other is up to. Delays and confusion are the inevitable result. One example is the case of the new Soviet-built and designed EGK-20 bucket excavator, delivered to the coal mine by the Uralmash factory in Sverdlovsk but idle for over a year while mine engineers pleaded in a series of increasingly desperate telegrams for spare parts. The delays got so bad that six months ago many of the managers were replaced. In many cases it seems that they were scapegoats for bureaucratic incompetence and interference further up the line.

'Bureaucracy is no substitute for competition'

To judge by the seriousness and apparent competence of the managers struggling to complete their projects on time and the stoic hardiness of the mainly young workers on the construction sites, the blame does not appear to lie at the sharp end where the work is actually done.

Mr Andropov put the blame on "deviations from the norms and requirements of economic life whose keystone is the socialist ownership of the means of production." A Japanese businessman deeply involved in the Neryungri coal project put it more simply. "Bureaucracy is no substitute for competition."

Lombard

Decision time for the Fed

By Samuel Brittan

A DECISION cannot be far distant on the chairmanship of the U.S. Federal Reserve Board. Mr Paul Volcker's first term of office expires this August and President Reagan will have to make up his mind long before on what he would like to happen.

The most desirable course would be to reappoint Mr Volcker, who has borne the main weight of economic policy-making under two administrations. It is largely due to the Fed's determination not to monetise U.S. Government debt that inflation has come down from double digits to about 4 per cent in spite of an upward leaping Budget deficit. If Mr Volcker has anything to do with matters, 4 per cent will not be the bottom of the inflation cycle but a basis for moving to reasonable price stability — say zero price increases in good years and 4 per cent in bad ones.

It was also under Mr Volcker's leadership that the Fed became aware of the Mexican and other debt crises, long before the U.S. Treasury realised that any action needed taking. The whole approach of an IMF drawing, bank rescheduling plus 7 per cent new money and a domestic adjustment programme, has been devised in an ad hoc manner *by a handful of people at the* IMF, the Fed, the Bank of England and the Swiss National Bank. Although we can all think up better paper schemes, it was largely due to Mr Volcker that the U.S. Administration woke up to the fact that there was a problem at all. With a new and untried Governor soon to take office at the Bank of England, the case for a safe pair of hands at the Fed is very strong indeed.

The technical monetarists make very critical remarks about Mr Volcker, which to say the least are highly exaggerated. The so-called instability of U.S. monetary growth disappears if one looks at annual averages, and allows for recent structural changes. To blame the severity of the U.S. recession on quarter to quarter monetary deviations or the failure to abolish "lagged reserve accounting" lacks all sense of proportion.

There is in any case very little chance of a so-called genuine monetarist being appointed. Mr Walter Wriston of Citibank has said he does not want the job; and in any case a chairman of this kind would probably stiffen the opposition of Democrat-appointed Fed Board members to "sound money" policy. Mr Volcker is about the most anti-inflationary chairman the Fed could hope to have. In spite of considerable financial and other sacrifices, my guess is that he would not refuse to serve again if he were asked. I would rate the chances of his reappointment at 40 per cent. That is, although the odds are slightly against, he is far more likely to be appointed than any other candidate.

The main argument used in Republican circles against Volcker's reappointment has little to do with policy or doctrine. It is that President Reagan should have a "good" (ie Republican) "team player" with whom he can feel at home. There is also a feeling that if a new man takes over at the Fed, the 1981-82 downturn can be blamed on a chairman inherited from the Carter regime.

The next most likely appointment, if Volcker is not appointed or declines to serve, is the vice-chairman, Preston Martin. The latter was appointed by President Reagan in 1982 and his main appeal is political. He is unlikely to rock the Republican boat. I would put his chances at 25 per cent.

A dark horse one hears mentioned is Alan Greenspan, who runs an economic consultancy firm and was chairman of the Council of Economic Advisers under President Ford. He is a sound, if dull, economist; and *his expertise is not particularly* in the monetary field. There could be worse appointments; but there could be better ones: I would put his chances at 15 per cent.

A still darker, dark horse is Prof. Henry Wallich. He is the Fed's international specialist; and his function on the Open Market Committee seems to be to vote for positions more "conservative" than that of the Fed Chairman, so that Paul Volcker can appear a moderate by comparison.

I would put his chances at 6½ per cent.

Letters to the Editor

The costs of changing to lead-free petrol

From Mr J. Richman

Sir,—It was interesting to read Kenneth Gooding's Geneva Motor Show report (March 16) in which he referred to car makers being upset by the new Swiss pollution laws. Inevitably, costs to the motorists will be increased.

It was surely instructive to see the statement from Prof. Werner Breitschwerdt, research and development board member for Daimler-Benz, that the suggested "use of lead-free fuels raises the fuel and vehicle costs and leads to higher energy consumption and higher wear of valves and valve seat rings." In other words, beyond the already widely acknowledged factors of worsened fuel *economy and poorer perform*ance, any move to lead-free petrol means that the cost of cars and service costs would also rise. No quantifiable benefits would be achieved from banning lead in petrol, but in pleasing various pressure groups and environmentalists we would be leaving future generations to foot the bill.

For the UK alone, ignoring the wider pan-European or world-wide implications, the cost penalty of changing to lead-free petrol would be in excess of £500m per annum. The economic facts do need to be more widely disseminated and understood. Any consequent costs burden will affect the general public directly, not the car makers in isolation as some might believe.

J. Richman.
Woodcroft, 15 Broad Lane,
Hale, Near Altrincham,
Cheshire.

Propping up coal mining

From Mr R. Musgrave

Sir,—Mr Wright (March 16) claims it would be "ridiculous" to seriously contract our coal mining (so called) industry and purchase American coal at half the price. *He gives no economic reasons but instead offers a long* sentimental appeal on behalf of allegedly long suffering coal miners.

The truth is that about half the coal mines in this country are not part of any industry; they are a pathetic job creation scheme which is perpetuated because those benefiting from the scheme will hold the country to ransom if their scheme is stopped. There is no conceivable economic justification for casting aside comparative advantage in the case of coal; nor is there any social justification because money not spent propping up hopeless coal mines will automatically create other more productive jobs.

R. S. Musgrave.
24, Garden Avenue,
Framwellgate Moor,
Durham.

A pay policy at work

From Mr J. Moss

Sir,—Because the poverty trap results from a maze of fiscal and administrative rules, only the Government can tackle its roots. But employers can avoid making matters worse and the Government, as the largest employer, has a duty to lead by example. I refer to the slavish use of fixed percentage pay offers.

A uniform percentage increase favours the more affluent but tax and National Insurance deductions cause real hardship to the lower paid (as my table shows). To award a £5 net increment to a single man just entering the taxable zone requires an added £8·16 (27 per cent) gross while for someone earning £220 only £7.14 (3 per cent) extra gives the same net addition. While the arguments against a pay policy may be strong, it is not often realised that use of fixed percentages is itself a pay policy.

If the employer's initial wage offer is an addition of £x a week after deductions to all, this could be seen as a responsible *effort to favour the low paid.*

J. R. F. Moss.
25, Church Street,
Stapleford,
Cambridge.

Gross pay rise needed to earn an extra £5 pw net
(after tax and NI contributions)

Description of present wage	Single: Present wage £	Single: Gross increase £	Single: Gross %	Married: Present wage £	Married: Gross increase £	Married: Gross %
£6 below NI threshold	24.50	5.00	20.4	24.50	5.00	20.4
At NI threshold	29.50	7.87	26.7	29.50	5.48	18.6
At tax threshold	30.10	8.16	27.1	47.02	8.16	17.4
At £100 per week	100.00	8.16	8.2	100.00	8.16	8.2
At maximum NI deduction	220.00	7.14	3.2	220.00	7.14	3.2
At start of 40% tax	276.25	8.33	3.0	293.17	8.33	2.8

(Pre-Budget figures)

Where do riches begin?

From Mr S. Penwill

Sir,—With reference to Mr Shore's budgetary ideas, would the "rich" to whom he refers and on whom he proposes to inflict even more penalising taxation, be those whose earn*ings are in excess of his own?*

S. W. Penwill.
Room 5.23,
76, Shoe Lane, EC4.

Patterns in carpet buying

From Mr D. Buck

Sir,—I must take issue with Anthony Moreton's article (March 15) "Cheaper home loans lead to some signs of an upturn."

The implication that house-buying bears some relationship to carpet sales is misleading. His sales figures for carpets dropping from 177.2m sq metres in 1977 to 125m sq metres in 1982 also give the impression of a declining market size. In fact these probably refer to UK production. My assessment of the situation is in the table.

Since 1973—the end of the "1960s growth" for carpets of about 12 per cent pa—carpet consumption has moved very closely in line with total retail volume growth of nearly 2 per cent pa. The problem has been the uncompetitive position of UK producers and consequent loss of exports as well as UK market share.

Anthony Moreton covers this aspect of the problem but there should be no illusions either that the UK market has shrunk in size or that it has temporarily disappeared as a result of changed patterns of house buying.

David Buck,
Laing & Cruickshank,
inc McAnally Montgomery & Co.
Piercy House,
Copthall Avenue, EC2.

	1976	1977	1978	1979	1980	1981	1982 est.
UK production	176.7	169.2	169.7	164.3	137.7	130.2	128
Less exports	39.6	43.8	35.9	29.3	20.9	16.5	13
Add imports	11.1	12.0	21.4	29.6	39.0	44.0	50
UK consumption	148.2	137.4	155.2	164.6	155.8	157.7	165
UK share csmptn.	92½%	91½%	86%	82%	75%	72%	69½%
Indexed 1973=100							
Carpet consumption	104	97	109	116	110	111	116
Total retail volume all goods	98	93	104	109	110	112	118

The need for renovation

From the Opposition Spokesman on Housing,
Greater London Council

Sir,—Your report (March 15) on the publication by Greater London Council of its analysis of London Borough and GLC housing strategy and investment programme (HIP) submissions picked out for comment the fall in public spending on new housing construction in London.

New building, however, is only one facet of any housing policy and it is not the top priority for London. In recent years the acknowledged need has been for major programmes of rehabilitation and renovation. London's serious housing situation requires that these quicker—and more effective—means of providing accommodation should be the first priority.

The submissions disclose that there are 32,700 vacant local authority dwellings in London—almost double the number of homeless families who are desperately seeking accomoda*tion. Many of these have* been vacant for years for want of renovation—a scandalous situation caused by the wasteful municipalisation policies of Labour authorities.

The scope for rehabilitation and renovation is made clear when one considers that in London there are 332,000 dwellings in both public and private sectors in need of renovation; *217,100 unfit dwellings;* 140,800 lacking basic amenities and 84,900 "difficult to let" council owned dwellings.

The Government's recent exhortation to local authorities to spend their allocation fully showed that its policy is to see this sorry situation bettered.

The GLC and many Labour boroughs have not either in 1981-82 or 1982-83 met their targets for capital expenditure on renovations; it is sheer hypocrisy for them to criticise the Government's policies. They should first (in more senses than one) set their own houses in order and thereby meet London's real needs.

(Councillor) Robert Vigars.
Members' Lobby,
County Hall, SE1.

Taking care of the dough

From Mr T. Clayton

Sir,—I was amused to see (March 17) that in your International Appointments advertising section, that the Barbados National Bank is looking for a new Managing Director, "who will be a person of recognised standing and experience in commercial baking." It obviously wants someone to take care of their dough!

Timothy Clayton,
2 Serjeants Inn,
Temple EC4.

FINANCIAL TIMES

Monday March 21 1983

STRAUSS KEEPS KOHL WAITING ONE MORE DAY

Bonn poker player has vital card

BY JONATHAN CARR IN BONN

THE POLITICAL poker game over formation of a new West German *government goes into a new and* possible final round tomorrow, with Herr Franz Josef Strauss still holding a vital card.

According to the original schedule, the negotiations on policy and personnel in a new Centre-Right *coalition under Chancellor Helmut* Kohl should have ended on Saturday.

The same day, Herr Strauss, leader of the Bavarian Christian Social Union (CSU), was supposed to make known his decision whether *to accept Herr Kohl's offer of an* unspecified Cabinet post.

But Herr Strauss, an old rival of Herr Kohl, unexpectedly postponed his announcement first until today, when he will be conferring with other leading members of the CSU in Munich, and then until tomorrow.

So far this delay has not affected the schedule under which Herr Kohl is to be re-elected Chancellor in the Bundestag on March 29 and his Cabinet sworn in a day later.

But it has given an added touch of drama to the coalition negotia*tions, and caused new rumours to* sweep Bonn, a town already rich in political hearsay.

According to one story, Herr Strauss has delayed making an announcement because he thinks the Economics Ministry job might fall vacant through the departure of Count Otto Lambsdorff, the present incumbent. This has been denied by all sides.

Another version has it that Herr Strauss is considering whether to take over the Defence Ministry job, with broad responsibility for security and disarmament issues. If that happened, it would imply friction with the Foreign Ministry under Herr Hans Dietrich Genscher, the leader of the liberal Free Democrats (FDP), the junior partner in the coalition.

It is seen as marginally more *likely that Herr Strauss will finally* decide to stay in Bavaria as Prime Minister, and that his present tactics are designed to give his CSU the greatest possible leverage in the negotiations.

The "Will Strauss come to Bonn?" *issue has partly obscured the fact* that the three partners – the FDP, CSU and Herr Kohl's Christian Democrats (CDU) – have already made good progress in their talks. Their aim remains to continue their government alliance for four years, following their general-election victory on March 6.

Broad agreement was reached on financial and budget issues last Thursday, and an accord has also emerged on several difficult social and legal issues.

The law that covers participants in violent demonstrations is to be toughened – as the Union parties desire. But the liberals successfully opposed efforts to penalise demonstrators who wear scarves or other coverings around their faces to escape identification.

*Plans pressed by the CSU to re*strict the number of foreign immigrant children joining parents working in West Germany have also been shelved. Defence and foreign-policy issues are to be decided tomorrow.

Ecuador devalues currency in stages

By Sarita Kendall in Quito

ECUADOR has devalued its currency, the sucre, by 27 per cent against the dollar; the exchange rate dropped from 33 to 42. The Quito Government also devalued by 21 per cent against other major currencies.

The free market rate was hovering around 85 to the dollar last week, but the government has not announced any measures to curtail free market operations.

The devaluation, together with a small increase in interest rates, *new exchange* regulations for imports and exports, and a rise in the prices of some fuels, is part of the stabilisation programme needed to earn approval from the International Monetary Fund and satisfy foreign banks.

As a result Ecuador expects to complete the rescheduling of $1.2bn of the public foreign debt and implement a formula covering more than $1bn of the private sector's foreign debt.

The acute shortage of foreign exchange has been one of the problems responsible for the plunging free market rate, as private companies chase dollars to pay off their debts.

In response to the measures trades union federations have already announced a two-day strike beginning on Wednesday. A series of protest meetings and marches will be held.

Sr Pedro Pinto, the Minister of Finance, who is going to the U.S. and Japan for talks with Ecuador's creditors, said reactions from the unions were only natural, but the situation would have become much worse if these steps had not been taken.

The price of milk was raised by 40 per cent and fuel oils prices went up by an initial 15 to 20 per cent. These are the first in a series of increases which will double the domestic cost of heating and other fuels within a year.

When the Government of President Osvaldo Hurtado abolished heavy subsidies on the price of bread and petrol last October there were disturbances and protests, and the authorities declared a one-week state of emergency.

THE LEX COLUMN

Casting doubts in Tokyo

So far this year, the direction of the Tokyo equity market has obligingly conformed to the ever-optimistic projections of Japan's leading research institutes and securities houses. After two years in which U.S. monetary policy and stagnant world trade volumes have scuppered forecasts of a rising yen, declining interest rates and buoyant corporate profits, a boost to confidence is badly needed.

At the end of last week, the most widely followed measures of Tokyo's equity market were standing at their highest level ever. The Nikkei-Dow Average has risen by a fifth from the low point registered last October and, at 8,234.9, is with*in striking distance of the 9,000 fig*ure which most forecasters expect to be breached in the current calendar year.

On the face of it, this represents decent progress. The market has after all advanced against an extremely unsound technical background. Heavy speculative buying towards the end of last year had pushed the level of margin positions to a record Y2,000bn – equivalent to roughly 2 per cent of the market's capitalisation – by the beginning of February.

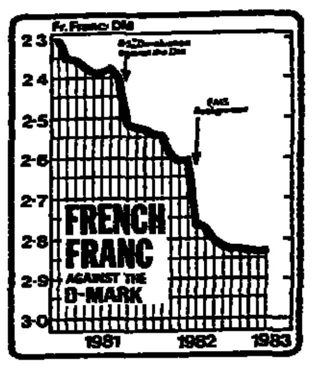
Margin positions must be closed within six months, so the securities houses are keeping their fingers crossed that the present mini-wave of overseas buying will be sufficient *to absorb a shrinkage of margin po*sitions. Memories of September 1981, when the liquidation of margin positions created a selling rout in Tokyo, are still vivid.

At that time, the Japanese equity market was responding hysterically to a sudden crisis of confidence of Wall Street. The intervening 18 months have not much reduced Tokyo's sensitivity to the latest movement in New York and the Japanese investor can thank the Standard & Poors Index for part of this year's capital profit.

The international investor, however, might have done better to stick with the S & P. Many of the higher-price blue chip stocks, traditional foreign favourites, are stand*ing well below the level of three* months ago, despite a very marked improvement in the immediate outlook for economic growth and corporate profits in Japan.

At a rough guess, a reduction of $3 in the contract price of crude oil would boost Japan's real GNP by around 0.4 per cent, slice 2 per cent off the wholesale price index, benefit the current account by around $5bn and provide a small boost to industrial production.

*The extent of the gains in com*petitiveness is admittedly dependent on the response of the yen to a *falling oil price* but, so far this year, the Japanese currency has shown no net rise against the U.S. dollar and it is a fair bet that any sustained appreciation would be accompanied by a cut in the official Japanese discount rate from its current level of 5½ per cent. At a time when the U.S. economy is showing tentative signs of recovery, a cut in short-term interest rates could be expected to stimulate both capital investment and consumption.



In the 12 months to last September, corporate profits showed a decline of roughly 20 per cent, owing largely to a 10.9 per cent increase in input prices. This position should progressively reverse in the current fiscal year and earlier forecasts of a *15–20 per cent rise in profits during* the half year to March 1984, as compared with the previous six months, are already starting to look rather modest.

The doubts which have contained the rise in the Nikkei-Dow Average to less than 3 per cent *this* year are principally over the longer-term economic outlook. Concern that the export-led growth of whole sections of Japanese industry will be curtailed by trade pressures and product saturation is increasingly compounded by evidence that the Japanese consumer is switching his spending from goods to services and by fears that the Japanese government, whose accumulated financial deficit is now equivalent to one third of GNP, will be unable to respond to problems in the manufacturing sector with a dose of fiscal stimulus.

The financing of the budget deficit should not, in the near future, impose crowding-out strains on the Tokyo debt market. The Japanese savings ratio, while slowly falling, remains among the highest in the world at 18.7 per cent and it is likely that, during a period of lower growth, the corporate sector will *meet a higher proportion of its capi*tal needs through internally generated cash flow.

Over the longer term, however, the Japanese authorities will need to refinance their existing 10-year bonds, the first of which mature in two years' time, while confronting the expenditure problems posed by a rapidly aging population and the strains within a public-sector pension fund system which is, in some instances now in heavy actuarial deficit.

The increase in public indebtedness has already resulted in a substantial portfolio shift among Japanese institutions away from the equity market and towards government bonds. At the end of last year, *mutual funds had only 37.1* per cent of their assets investment in Japanese equities, compared with 59.4 per cent 10 years earlier.

The equity market has risen dramatically during that period, thanks in large measure to the modest equity requirements of the corporate sector and, at least recently, to heavy net investment by non-residents. A period of lower growth in corporate earnings could upset that supply/demand equation, as companies substitute equity for bank finance and move towards the higher distribution levels normal in the stock markets of mature industrialised economies.

EMS

The provisional arrangement announced yesterday by the members *of the European Monetary System,* through which the onus for determining the appropriate parities of participating currencies will be shuffled on to the foreign exchange markets, is likely to produce scenes of chaos when trading opens this morning.

It is central to the credibility of a system like the EMS that central banks are seen to support member currencies at their parity limits until a new set of rates is established by negotiation, however frequent such changes may be.

Under the old "snake" and in the early days of the EMS, realignments were – if not exactly sprung upon the market – at least timed to prevent damaging losses of foreign exchange reserves among member central banks. The use of increasingly heavy-handed expedients to squeeze the bears, culminating in last week's manipulation of Euro-franc rates to extremely high levels, has apparently now been followed by a straightforward admission of *failure.*

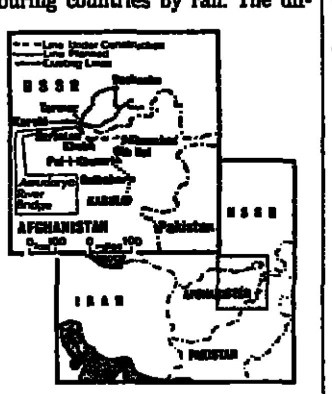
Soviets agree first Afghan railway

By Hazel Duffy in London

AGREEMENTS between the Soviet and Afghanistan governments are believed to have been signed in the last couple of months giving the go-ahead for the first railway to be built in Afghanistan.

The authoritative Railway Gazette International reports this week from Pakistan that the agreements pave the way for construction of the first stage of railway to Kabul.

If the Russians succeed, they will have achieved something that was planned by the British in the 1920s, and more recently by the French, to link Afghanistan with its neighbouring countries by rail. The dif-



ference will be that this line will *link* the Soviet border with Kabul, whereas previous plans would have linked the capital with Pakistan and Iran.

The Russians started work on a road and rail bridge over the Amu Darya River on the border immediately after the invasion of Afghanistan. This was completed last year. From here, it is thought that the detailed design of a 250km link to Pul-i-Khumri is now being undertaken.

Pul-i-Khumri is described as an *important supply depot* for the Russian military effort of controlling Afghanistan.

The 150km from this point to Kabul is through difficult mountainous terrain where the degree of security achieved by the Russians is thought to be much less than in the northern zone. The extension of the line to Kabul would be a logical development, however, as and when the Russians deem it feasible.

Mr Richard Hope, editor of the Railway Gazette, says: "We have been expecting this development for some time. The railway is the dominant mode of travel in the Soviet Union, and it seemed likely that the Russians would build a railway when they judged the situation to be right." The railway will be 1520mm (5ft) gauge, the standard gauge throughout the Soviet Union.

● The foreign ministers of Pakistan and the pro-Soviet regime in neighbouring Afghanistan will discuss in Geneva next month a political solution to the Afghan war, said Pakistan's ambassador, AP reports from Geneva.

Ambassador Fazli Razio said the two sides would meet indirectly through a United Nations mediator

BL unit to buy Japanese and German gearboxes

BY ARTHUR SMITH IN BIRMINGHAM

AUSTIN ROVER, part of the state-owned UK car manufacturer BL, is *expected to buy gearboxes from Ja*pan and West Germany for the XX, the new executive car to be produced in collaboration with Honda.

The move is bound to arouse renewed concern among UK components suppliers about BL's intention to switch orders overseas. There are fears that BL's volume cars division might contract out too much of the high-technology work and increasingly become a mere assembler of vehicles.

Zahnradfabrik Friedrichshafen of West Germany and Honda are likely to supply gearboxes for the XX, which is expected to go into production within two years at BL's Cowley plant in Oxford.

The new model will eventually re*place the current Rover, the manual* gearboxes for which are made at BL's Land-Rover factory in South Wales, The contract for the automatic gearbox was switched recently from Borg Warner in South Wales, to General Motors in Strasbourg.

*Austin Rover was quick to re*spond to unrest at the recent Geneva Motor Show among European rivals about the Japanese content of the Cowley XX, which will go on sale throughout the EEC.

Senior company executives insist that at least 80 per cent of the price on leaving the factory will be British, compared with the 74 per cent claimed for the Triumph Acclaim currently built under licence from Honda.

Whereas the engine and gearbox for the Acclaim come direct from Honda, Austin Rover is expected to insist that it contributes an engine in the new joint venture.

Honda, with its V6 2.6-litre en*gine, looks favourite to provide* power for the biggest model in the range. But money is thought already to have been allocated for extensive development of Austin Rover's "O" series engine, which currently powers the successful 2-litre version of the Rover.

A diesel version of the "O" series is already under joint development with Perkins Engines and can be expected to feature in the XX.

At the official signing of the BL-Honda deal, expected within the next few weeks, details of the split between responsibilities are unlikely to be revealed.

There will be two versions of the XX assembled at Cowley, one with a Rover and one with a Honda badge. The increased sales projected for the joint venture could mean output up to double the 1,000 a week of the present Rover.

Higher volumes would also be welcomed at Austin Rover's Longbridge plant, Birmingham; which supplies the "O" series engine. *Trade union officials there have* repeatedly expressed concern about BL's commitment to retaining capacity to manufacture engines, and the associated power train.

Editorial comment, Page 14

Recession pushes IADB loan commitments to $2.74bn

BY PETER MONTAGNON IN PANAMA

NEW LOAN commitments by the Inter-American Development Bank rose 10 per cent last year to a record *$2.74bn as the bank sought to* alleviate the effects of recession on the economies of Latin American and the Caribbean.

In the bank's annual report issued on the occasion of its annual meeting which opens in Panama today, it says 1982 was marked by a shift in priority with considerable extra help afforded to development projects in the industrial and mining sector. Lending to such projects quadrupled last year to $421m as the decline in Latin American industrial output continued.

As a result the bank lent less to other priority sectors such as energy which took $797m in new loans compared with $1bn in 1981. Agricultural development loans were down at $414m compared with $691m.

Despite the continuing economic crisis in Latin America, where the report says living standards have fallen by 5 per cent since 1980, the bank records some satisfaction with the level of development lending *achieved in the four year "Fifth Re*plenishment" period which ended in 1982.

At the end of last year, its total accumulated lending stood at $22.5bn in support of development projects in the region worth an overall $85bn. The 43 shareholder governments in the Americas and Europe have recently agreed a further "sixth replenishment" of the bank's capital which is to be raised to $35bn from $20bn. This will allow it to lend a further $13bn in the next four years.

Priority guidelines for this new lending will be one of the major topics of the bank's annual meeting.

Borrowing by the bank on world capital markets rose to a record $1.3bn last year from $787m in 1981 and left outstanding borrowings at the end of the year at $4.25bn.

The bulk of last year's borrowing was raised in U.S. dollars which accounted for 34 per cent of the total followed by D-Marks with 19 per *cent, yen with 15 per cent* and Swiss francs with 12 per cent. The bank raised £85m ($128m) in London last year through a £10m bank credit and a £75m issue of bulldog bonds in the debenture market.

Decision soon on Middle East plan

Continued from Page 1

plan, an attitude which has caused some irritation in Washington. The State Department expected London to be more supportive of the King's own desire to become involved in negotiations.

The U.S. indicated initially that it wanted a decision from King Hussein by March 1, six months after the Reagan proposals were announced. It is feared that unless there is movement shortly, the hands of the Administration will be tied by domestic political events leading to the 1984 presidential *elections.*

Israel has rejected the Reagan plan as a basis for a Middle East peace and Mr Menahem Begin, the Prime Minister, remains determined to maintain control of the West Bank which he considers part of the biblical land of Israel.

Patrick Cockburn adds from Amman: In the clearest sign yet that the Palestine Liberation Organisation is willing to allow King Hussein of Jordan to start peace negotiations on its behalf, a senior member of the organisation has said that PLO chairman, Mr Yassir Arafat, is free to continue talks with the King.

Mr Khalil Wazir, better known as Abu Jihad, the main military leader of the PLO, said today in an interview with the daily Jordan Times that the meeting of the Palestine National Council in Algiers had not restricted in his view Mr Arafat's capacity to negotiate with the King.

Paris plans new economic moves

Continued from Page 1

In what seemed a calculated act of brinkmanship, however, the Government spokesman seemed to keep open the possibility of France quitting the EMS if no satisfactory compromise is found at this morning's meeting of finance ministers.

For the French Government *it is* important that France should not be alone in devaluing but that a French devaluation – however small – be part of an overall realignment which involves devaluations by other European countries.

The Government spokesman warned that France would "determine its position" at the end of this morning's meeting. This point was underlined by M Delors who also said that a decision must be reached before the European summit began.

M Delors again emphasised that for France the monetary issue was one of many unresolved European disputes over agricultural policy, external trade policy towards the U.S. and Japan, German and Dutch monetary compensation units and of industrial co-operation. He said: "We cannot envisage the future of the EMS separately from the imperative need to resolve the other problems."

Among the measures under study in Paris for cutting consumption to bring down the external trade deficit are the raising of public sector tariffs, higher social security contributions, lower welfare payments, and increases in direct and indirect taxes. Though it is mostly agreed on the Left that the trade deficit must be brought down to avoid adding to France's external debt, there are sharp differences on how this should be done.

The Communists and radical Socialists are hostile to measures that cut popular purchasing power, and favour protectionist measures to curb imports. There is also a strong lobby in the Government in favour of quitting the EMS.

Divisions over this mix of policies and President Mitterrand's attempt to build a consensus behind him have been behind the political crisis of the past week.

World Weather

		°C	°F			°C	°F			°C	°F			°C	°F
Ajaccio	S	18	61	[illegible]	S	17	63	Malaga	S	21	70	Salzburg	C	11	52
Akrotiri	C	16	61	Faro	F	18	64	Malta	F	15	59	Seoul	C	13	55
Algiers	S	20	68	Florence	S	16	61	Manila	S	36	97	Singapore	C	33	91
Amsterdam	C	10	50	Frankfurt	F	12	54	Miami	C	26	79	Stockholm	S	5	41
Athens	S	18	64	Funchal	F	19	66	Milan	S	17	63	Strasbourg	C	13	55
Bahrain	S	23	73	Geneva	S	12	54	Moscow	R	3	37	Sydney	R	22	72
Bangkok	S	33	91	Gibraltar	F	17	63	Munich	C	10	50	Taipei	C	24	75
Barcelona	S	17	63	Guernsey	C	8	46	Nairobi	—	—	—	Tangier	F	21	70
[illegible]				[illegible]				[illegible]				[illegible]			

Readings at mid-day yesterday.
C-Cloudy D-Drizzle F-Fair Fg-Fog H-Hail R-Rain S-Sun Sl-Sleet Sn-Snow T-Thunder

EMS currencies allowed to float

Continued from Page 1

French membership of the EMS, he arrived in Brussels on Saturday afternoon aware that left-wingers in the French Government were fighting against another devaluation and austerity package aimed at halting the run on the franc which, by Friday, had again forced it down to its lowest permitted rate in the EMS.

In an immediate attempt to strengthen his hand he played on the fears of other member states about a French withdrawal from the EMS, followed by a further lurch towards trade protectionism by *issuing a blunt public warning* that France would quit the system if there was no agreement over the weekend.

In a veiled attack on last week's West German charges that the instability in the EMS was more a problem of the franc than of the D-Mark, he said his attempts to prepare the ground for the negotiations had met with "arrogance and a refusal to understand."

During later discussions M Delors is said to have given his colleagues a glimpse of the French domestic economic measures which might follow a franc devaluation. He also said France would seek to borrow money under the community's aegis to help finance its balance of payments deficit.

He gave a similar indication when the franc was devalued by 5.75 per cent in last June's realignment, but Paris did not make any subsequent application under the scheme which is authorised to raise up to 6bn ECU's on behalf of member states with balance of payments problems.

As they reflected on the difficult and complicated negotiations some observers and officials concluded that the weekend had dealt a grave blow to the EMS.

In six previous realignments, the ministers had managed to respond smoothly to market pressures with effective political agreements.

Published by The Financial Times (Europe) Ltd., Frankfurt Branch, represented by G.T.S. Damer, Frankfurt/Main, A.V. Hare, R.A.F. McClean, M.C. Gorman, B.A. Lawrence, D.E.P. Palmer, London, as members of the Board of Directors. Printer: Frankfurter Societäts-Druckerei GmbH, Frankfurt/Main. Responsible editor: C. E. P. Smith, Frankfurt/Main. © The Financial Times Ltd, 1983.

SECTION II – INTERNATIONAL COMPANIES
FINANCIAL TIMES
Monday March 21 1983

INTERNATIONAL CREDITS

Poland renews debt rescheduling talks

BY PETER MONTAGNON, EUROMARKETS CORRESPONDENT, IN LONDON

IT IS a sorry testimony to the lasting nature of sovereign debt problems that Poland is about to embark on discussions with commercial bank creditors for a third round of debt rescheduling.

Representatives of leading creditor banks will beat a familiar path to Warsaw this morning for preliminary talks on deferring repayment of debt due to them in 1983, and possibly later years as well. Some $4.5bn of bank debts have already been refinanced over the past two years.

Poland became the first major country to incur debt problems when it sought a rescheduling in 1981. Since then, it has been joined by so many others that the scale of its debt problems has become relatively small. Even though its internal economic difficulties remain intractable, the size of its debts to foreign banks now also looks rather small in absolute terms.

A large portion of Polish borrowing has been in European currencies, which have depreciated against the dollar over the past two years.

Latest calculations from creditor banks suggest that, in dollar terms, the debt owed to them, which is not guaranteed by any Western government, amounts to only around $6.5bn. This means that only little more than $2bn remains to be refinanced – an amount equal to only a tenth of the rescheduling Mexico is seeking of debt maturing this year and next.

Talks with Poland this year are, however, not going to be absolutely straightforward. While Polish officials have said they would like to reschedule all debt maturing over the next three years, some banks are likely to oppose such a long-term commitment in the absence of any agreement between Poland and Western governments on official credits.

European countries have been trying to persuade the U.S. to drop its opposition to negotiations on this part of the Polish debt, but, so far, without success.

What seems unlikely, on the other hand, is a return to the sheer nervous tension of the early days of Poland's debt rescheduling.

Since then, the banking world has had bigger problems to worry about. Last week alone saw fresh developments in the debt renegotiations of a whole range of countries – Mexico, Chile, Costa Rica, Peru und Yugoslavia, to name only five.

Of those, one of the more worrying was the revelation by the chairman of the team negotiating Costa Rica's rescheduling that talks had reached an impasse. This could destabilise other fragile arrangements in Latin America, and there are likely to be intense efforts behind the scenes to retrieve the situation at this week's Inter-American Development Bank annual meeting in Panama.

Yugoslavia, meanwhile, has replied during the weekend to proposals from commercial banks for a refinancing and new loan package totalling some $2bn. The coordinating bank, Manufacturers Hanover, is expected to transmit details of the reply to other leading creditors early this week.

However, Yugoslavia is thought to be seeking modifications to the proposals, particularly the requirement from the banks that its national bank and federal government act as borrower for both the refinancing and new money. This is constitutionally difficult for decentralised Yugoslavia, whose regional banks have been the major borrowers in the Euromarkets.

Meanwhile, some progress has been reported from both Peru and Chile. As already reported, Peru has circulated to creditor banks the proposed terms for the $880m loan it is seeking to refinance maturing debt this year and provide $450m in new money. The terms have been agreed with lightning speed and banks are expected to reply by mid-April.

Chile's planned talks with commercial banks were postponed last Friday for about a week while the country concentrated on renegotiating some of the terms of its current International Monetary Fund agreement.

According to Chilean officials, preliminary agreement has been reached with the fund on modifying certain key economic targets which had become unattainable. This is welcome news to the country's creditor banks who cannot entertain, a refinancing agreement with Chile unless it remains in good standing with the IMF.

Mexico has, meanwhile, asked for a five-month extension of its current debt repayment moratorium to allow time to complete details of its $19.7bn rescheduling plans.

Amid all these negotiations, the Eurocredit market is still very quiet, but an air of suspense still surrounds Portugal's request for a $400m credit. Leading banks are now convinced that it will have to pay more than the originally indicated margins of ⅝ per cent over Libor or 0.3 per cent over U.S. prime rate on the credit.

D-Mark bond market bucks the international trend

BY MARY ANN SIEGHART IN LONDON

THE D-MARK bond market should have seen a flurry of activity last week. All the signs were there: the Christian Democrats won the election two weeks ago; the Bundesbank cut its official interest rates and the D-Mark gained in strength.

And yet, prices rose by just ½ point in a week of no more than moderate turnover. So what happened?

First, the German market should be seen in the context of other international bond markets. The Eurodollar, Swiss franc and U.S. domestic markets were all sluggish last week, so the ½ point gain in Germany was bucking the international trend. Had the New York market, on which Germany depends heavily, given a clear positive lead, the gains might have been higher.

Next, most of the positive indicators had been discounted in advance. The week before last, there was heavy buying in advance of the election, as investors realised that a conservative victory would probably mean a strong D-Mark and lower interest rates.

Finally, the bond market was somewhat overshadowed in performance terms by the equity market, into which much of the speculative money was going.

Nevertheless, both of the two public new issues – Rank Xerox and Escom – were trading at a premium of about ½ point to their issues prices on Friday. And the new issue calendar for the next four weeks, which schedules 10 offerings totalling DM 1.65bn, brought optimism to the market. "It's heavy, but we can handle it," said one dealer. "At least the borrowers are good names."

While the D-Mark six-month Eurodeposit rate – the most useful indication of short-term interest rates – closed on Friday unchanged from a fortnight before, both dollar and Swiss franc rates have gained over half a point in the last two weeks.

This, together with an overhang of unsold paper in both markets, and caution about U.S. Treasury funding requirements, has left the Swiss franc and Eurodollar market slack.

Prices of seasoned Swiss franc bonds fell by about one point over last week, with the only pick-up coming on Friday in the wake of a half-point cut in the Discount and Lombard rates. But despite the lack of buying interest, seven new issues were launched.

Since January, bonds from Japanese borrowers have accounted for 55 of the 85 new Swiss franc issues, or SwFr 4bn out of a total of SwFr 7.8bn ($3.79bn). Coupons on these bonds have had to rise in order to attract enough investor interest. While in January, many Japanese borrowers were coming to the market on 5½ per cent coupons, a more common rate now is 6 per cent. Even with such a yield, last week's Tohoku Electric. Power SwFr 100m bond opened at a discount of 3½ points on its first day, before picking up along with the rest of the market on Friday.

The Eurodollar sector had a very quiet week, with only three straight new issues, one floating rate note and one convertible. Of these, all except Crocker National Bank's $75m, five-year, 10½ per cent bond, traded at discounts within their selling concessions.

The Crocker deal, on which many new issue houses turned down the co-management invitation, was trading on Friday at a discount of around 2½ points.

The dollar secondary market was lacklustre all week, easing by about ¼ point on Monday and changing little thereafter. Dealers reported an almost total lack of retail investor interest.

● Changes in last week's budget will now allow British borrowers to pay interest on Eurobonds gross of withholding tax, without using an offshore financing vehicle. But bondholders claiming their interest payments from UK paying agents will have to produce a certificate of non-residence in the UK.

Basle Concordat revised

BY ALAN FRIEDMAN, BANKING CORRESPONDENT IN LONDON

TOWARDS the end of last year, a special meeting of leading central bank supervisors was convened in Basle under the chairmanship of Mr Peter Cooke of the Bank of England. The so-called Cooke Committee was at work on a secret revision of the landmark Basle Concordat of 1975, the main formal agreement on international banking supervision.

The Cooke Committee had been at work on the revision since last September, and was inspired largely by the collapse of Banco Ambrosiano's Luxembourg holding company amid claims by creditor banks for $300m to $400m.

One of the key ambitions of the Group of 10 bank supervisors (plus Switzerland) was to narrow the gaps in the Concordat which had allowed the Luxembourg and Italian authorities to evade what some central bankers regarded as their respective duties.

Firstly, the new code sets out a clear definition of the responsibilities of host and parent country bank supervisors in matters relating to "intermediate" institutions, such as holding companies and joint ventures.

Secondly, the newly clarified code states that, in matters of solvency, it is up to the parent bank authority to supervise. In matters of liquidity, it is the local (host) authority's responsibility.

Finally, the new set of principles makes clear, once and for all, that neither the original Concordat nor this document imply the existence of any agreement among central banks to serve as an ultimate "lender of last resort."

CURRENT INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead Manager	Offer yield %
U.S. DOLLARS							
CCF †‡	125‖	1998	15	5¼∅	100	CCF, Morgan Gty., Sumitomo Fin.	–
Crocker Nat. Bank ‡	75	1988	5	10½	100	Kidder, Peabody	10.500
Scandinavian Bank †‡	60	1993	8	5¼∅	100	Morgan Grenfell	–
OKB ‡	175¶	1991	8	10	93¾	Orion Royal, EBC, Morgan Gty.	11.224
Bk. of Tokyo ‡	100	1990	7	11	100	CSFB, Morgan Gty., SG Warburg, Bk. of Tokyo	11.000
SCI Finance §	20	1998	15	5	100	Dominick & Dominick	*
CANADIAN DOLLARS							
Inter-Provincial Pipeline ‡	50	1993	10	12¼	100	Wood Gundy	12.250
D-MARKS							
Escom ‡	150	1990	7	8½	100	Commerzbank, Dresdner Bank	8.500
Granada **‡	50	1988	5	7⅞	100	Bay. Vereinsbank	7.875
Rank Xerox ‡	75	1993	10	7½	100	Deutsche Bank	7.500
Alusuisse **‡	50	1989	6	7¼	99	Deutsche Bank	7.463
Electrolux **‡	40	1989	6	7¼	100	Deutsche Bank	7.250
SWISS FRANCS							
Clarion Co. **§‡	100	1988	–	3¾	100	SBC	3.750
Stanley Electric **§‡	40	1988	–	3⅞	100	UBS	3.875
Carlsberg-Tuborg ‡	60	1993	–	5¾	99½	UBS	5.817
Aucalsa **‡	55	1988	–	6⅞	100	Banco Exterior (Suisse)	6.875
TorDom Bank **‡	100	1990	–	5¼	100	CS	5.250
Sanyo Denki **‡	20	1988	–	4⅛	100	SBC	*
Trisec Corp ‡	100	1991	–	6¼	100	Royal Bk. of Canada (Suisse)	6.250
Ricoh Co. **‡	100	1988	–	6	100	UBS	6.000
Sanyo Electric §	100	1993	–	3⅝	100	CS	*
Fuji Electric	100	1993	–	*	*	Banca del Gottardo	6.000
AUSTRALIAN DOLLARS							
Primary Industry Bk. of Australia ‡	20	1988	5	14¼	100	Orion Royal Bank, Nikko Secs.	14.500
GUILDERS							
Indonesia	100	1993	5¼	8¾	*	Amro Bank	*
ECUs							
Eurotom ‡	50	1993	8	11⅝	100	Soc. Gen. de Bque., Kredietbank, BBL	11.625
YEN							
Sweden ‡	20bn	1993	9	8.3	99.8	Nomura Secs.	8.503
Credit Foncier ‡	15bn	1993	9	8.3	99.6	Yamaichi Secs.	8.534

* Not yet priced. ‡ Final terms. ** Placement. † Floating rate note. ∅ Minimum. § Convertible. ‖ Increased. ¶ In two tranches. Note: Yields are calculated on AIBD basis.

U.S. BONDS

Fed uncertainties continue to depress market activity

RETAIL investors made a concerted dash for the sidelines last week, leaving the U.S. credit markets well and truly in the doldrums. Activity was exceptionally quiet and government bond prices closed the week virtually unchanged.

The main reasons for the lack of activity were a further slight firming in short-term interest rates, a heavy oversupply of new issues from the Treasury, which will continue this week, and growing uncertainty about the Federal Reserve Board's current monetary stance.

Yields on three-month Treasury bills closed higher by about 20 basis points while the Fed Funds rate traded at over 8.5 per cent for most of the week. This reinforced the view of most Wall Street economists that the Fed is unwilling, at least for the moment, to push rates lower and is content to see the funds rate trade between 8.5 per cent and 9 per cent.

Indeed, a minority of Wall Street observers have begun suggesting that the Fed may have already temporarily tightened the monetary reins by lowering its net free reserve targets as a result of a bulge in the monetary aggregates.

While the overwhelming view is still that the Fed has not embarked upon a progressive firming, a number of factors, including Mr Paul Volcker's recent comments on money supply growth, have led to heightened uncertainty in the credit markets.

This was reflected again late on Friday when the Fed announced another large increase in M1, the basic money supply measure. The Fed said M1 increased by $4.8bn in the latest week and bond prices sank on the news.

Also adding to the uncertainty about the Fed's current posture were the latest batch of economic statistics. The most positive, for the bond market, were the scant 0.1 per cent increase in producer prices in February and the smaller than expected increase in housing starts.

Both suggest that the economic recovery may be considerably less robust than January's figures had first indicated. This coupled with the impact of lower oil prices, should continue to allow the Fed room for manoeuvre without the danger of rekindling inflationary fears.

Nevertheless, the credit markets, and the Fed, appear caught once again in a set of fiscal, monetary and economic cross currents. The market's attention is now firmly fixed on the next Federal Open Market Committee meeting on March 29 in the hope that some clearer picture may appear in the aftermath.

In the meantime, the U.S. credit markets are having to contend with the latest flood of new Treasury issues to help fund the deficit. The heavy supply of new treasury issues, much of which is still in dealer hands, was probably the main reason behind the market's lacklustre performance last week.

On Wednesday the Treasury auctioned $7.75bn of two-year notes at an average yield of 9.60 per cent compared to 9.71 per cent at the last two-year note auction in February. The auction went less well than the market had expected and set an uneasy tone for Thursday's sale of $7.75bn of one year notes, at an average yield of 8.427 per cent, and this week's mini refunding involving $13.5bn of new issues.

The market will be closely watching the auctions this week for any signs of renewed investor interest. Tomorrow the Treasury will offer $5.5bn of four-year notes followed by $4.75bn of seven-year notes on Wednesday and $3.25bn of 20-year bonds on Thursday.

Together this week's offerings will raise an additional $9.64bn for the Treasury's coffers.

Paul Taylor

U.S. INTEREST RATES (%)

	Week to Mar 18	Mar 11
Fed funds wkly aver	8.57	8.58
3-month T bills	8.35	8.26
3-month CDs	8.75	8.66
30-year Treas bond	10.87	10.89
AAA Utility	12.00	12.00
AA Industrial	11.75	11.75

Source: Salomon Bros (estimates). In the week ended March 9 M1 increased by $4.8bn to $487.8bn.

Hughes Tool sees quarterly loss

BY OUR FINANCIAL STAFF

HUGHES TOOL, the world's leading producer of oil and gas drilling bits, expects to make a loss for the first quarter of 1983.

The company, whose profits fell dramatically last year, says that the Venezuelan devaluation will push it into the red for the first quarter of 1983. But for these currency factors, the quarter would have broken even.

However, Hughes' problems with demand, which last year dragged earnings per share down to $2.65 from $4.60 in 1981, look to have persisted. The company says it does not believe second quarter results will show any improvement over the first.

Last year's sales weakness was reflected in a near 10 per cent decline in turnover to $1.6bn from $1.76bn in 1981. The company was forced to lay off some 30 per cent of its domestic workforce.

Another U.S. producer of oilfield equipment has made tentative forecasts of a recovery. Armco, which last year slid heavily into the red, expects to return to profits "late this year."

Against net profits of $295m in 1981, the company, whose activities take in steel and fabricated products, chalked-up losses of $345.3m last year, largely as a result of $264.5m of special charges.

The oilfield equipment business has "reached bottom," but will not recover for many months yet, the company says, in its annual accounts. Carbon steel demand remains low and many major U.S. producers are not likely to be profitable in 1983.

Armco's recent cost-reduction efforts are reflected in reduced employment levels which at the year-end stood at 52,000 against 67,660 a year earlier. Early retirement and other efforts to cut salaried employment costs will save the company more than $100m a year.

Swedish pulp group in red

BY DAVID BROWN IN STOCKHOLM

MoDo, the Swedish pulp and paper group, reports a pre-tax loss of SKr 174m ($23.5m) for 1982, compared with a profit of SKr 25m a year earlier. It is to pay an unchanged SKr 7.50 a share dividend.

Operating profits were little changed at SKr 315m, but net financial debits soared to SKr 489m from SKr 287m as a result of currency losses and high borrowing costs. Sales, of which three-quarters go abroad, improved by an eighth.

Deliveries of pulp stood at 80 per cent of production capacity. The paper mills also cut production but the consumer products division showed stable results.

Capital spending was curtailed last year, easing from SKr 666m in 1981 to SKr 343m. The group is negotiating the sale of its hydro-electric assets.

MoDo expects its results to improve this year, even if economic recovery is modest. It says the Swedish devaluation will improve its competitive position.

KNP to pay a dividend

BY OUR FINANCIAL STAFF

KNP, the Dutch paper group, has moved out of the red for 1982 and is to pay its first dividend in nine years.

Against losses of Fl 6.2m a year earlier, the company has returned net profits of Fl 8.5m ($3.2m), of which Fl 6.5m arose in the first half of 1982.

The group is proposing to resume dividend payments with Fl 2 per share. Of this, half is payable in cash and the rest in shares. KNP's last payout was in 1974.

Net profit per share amounted to Fl 3.74 compared with a loss of Fl 2.72 in 1981. Cash-flow rose to Fl 27 per share from Fl 19.92.

● The chief of the foreign transfer department of Slavenburg's Bank was arrested on Friday on suspicion of embezzling "tens of millions."

The suspect, identified only as Van Der Heul, allegedly transferred large amounts of money to accounts in his name in the Netherlands and other countries, according to the bank.

Italian unit trusts underway by autumn

BY OUR ROME STAFF

THERE was euphoria on the Milan bourse on Friday after the Italian Senate had at last approved long-awaited legislation that will enable major banks and insurance and finance companies to introduce unit trusts or mutual funds on the Italian stock exchanges.

When the law has been implemented and the requests to introduce unit trusts passed by the Treasury Ministry, the first trusts should be introduced in the autumn.

The Milan stock exchange has risen by more than 20 per cent since January, partly in expectation of unit trusts investment. They are expected to bring substantial new demand to the stock exchange and thereby encourage more companies to offer shares on the market.

There are also hopes that unit trusts wil make the market more sophisticated and less prone to questionable practices and insider dealing. The first unit trusts are expected from the banks, led by Banca Nazionale del Lavoro, which is planning to introduce three funds.

The financial holding company, La Centrale, owned by the Nuovo Banco Ambrosiano group, is also planning to bring in three trusts and the insurance company, RAS, is planning one or possibly two.

The unit trusts law has been under consideration by parliament off and on for almost two decades. The only investment Trusts quoted on the Milan stock exchange are technically under Luxembourg law, although usually managed by Italian groups.

The Senate was also expected to approve legislation on company accounts and tax, enabling the revaluation of assets to take account of inflation.

The company legislation, known by the name of its original proposer, Sig Bruno Visentini, the former Finance Minister, has been welcomed warmly by Italian companies.

It will allow them to revalue their assets to take account of inflation, instead of being valued on a historic cost basis. The law will also allow greater tax exemptions and higher tax-free depreciation.

INTERNATIONAL APPOINTMENTS

Group executive formed at Bank of Ireland

THE BANK OF IRELAND has appointed four managing directors who, with the chief executive designate, Mr Mark Hely Hutchinson, will form a new group executive.

Mr Frank O'Rourke, chief general manager, becomes managing director with responsibility for branch banking in the Republic of Ireland, marketing and related services.

Mr P. J. Molley, general manager-east, becomes managing director responsible for branch banking in the UK and for group personnel.

Mr John P. Bourke, chief financial officer, becomes managing director responsible for international banking, corporate banking, Investment Bank of Ireland and the Bank of Ireland Finance Group.

Finally, Mr M. A. Keane, general manager, becomes managing director with group responsibility for financial control, operations, treasury, internal audit, credit control and accounting services.

Mr Molloy and Mr Keane are newly appointed to the bank's court of directors. Mr Molloy joined the Bank of Ireland in 1957. He has an honours degree in business studies from Trinity College Dublin and is a graduate of the Harvard Business School. Mr Keane joined the bank in 1958. He holds a master of economics degree from University College Dublin, and is also a Harvard Business School graduate.

The appointments are part of a general management reorganisation under the new chief executive, who is soon to take up his new post.

Mr Hely Hutchinson, previously managing director of Guinness Ireland, says an important feature of the new structure means that each individual will have both line, ie field responsibilities and will also have control of service areas in the group's Dublin headquarters.

● Mr Kurt Green has been appointed managing director of ASEA (PHILIPPINES) INC., Manila. Mr Green, marketing manager of CEWE AB, Nyköping, an ASEA Group company, succeeds Mr Jan Finnborg, who will take up a new assignment within ASEA's process industries division.

● Mr Alden L. Norman, Jr. has been elected president and chief operating officer, of THE BADGER COMPANY INC., a subsidiary of Raytheon Company. He will succeed Mr Philip H. Seaver who retires on April 1. Badger is based in Cambridge, Massachusetts. Mr Norman joined Badger in 1980 as corporate vice-president, engineering, and was promoted to senior vice-president, Western Hemisphere, the following year. He was elected a director of Badger

● Dr Heinz R. Wuffli and Dr Thomas W. Bechtler have been appointed to the board of BANK LEU, Zurich.

● Mr J. M. Little, deputy chairman and chief executive of Anderson Strathclyde, has been elected chairman of NATIONAL MINE SERVICE. Mr K. E. Mcelhattan has become deputy chairman but will continue as president and chief executive. Mr Mcelhattan had been chairman and president of National Mine. Anderson Strathclyde recently purchased 51.2 per cent of National Mine Service shares outstanding in its offer for the Pittsburgh-based maker of mining equipment. Mr Mcelhattan will be elected a director of Anderson Strathclyde as soon as shareholder approval is obtained to increase the maximum number of directors permitted. National Mine Service directors have entered an employment agreement with Mr Mcelhattan to remain deputy chairman president and chief executive for at least three years and an agreement for a similar term has been signed with Mr H. F. Gerhard executive vice president for operations.

● Mr William H. Schmitt has been promoted to the new position of group director, research and control, for the health and beauty products, Prince Matchabelli and international divisions of CHESEBROUGH-POND'S INC. Mr Schmitt joined Chesebrough-Pond's in April 1974 as director of product development and was named director of international research and control in October 1974. Mr John P. McCook has been promoted to director of research and control for the international division, succeeding Mr Schmitt. Mr McCook joined Chesebrough in 1970 as a chemist and had been manager of product development for the health and beauty products division since 1978.

● Mr Gerald L. Gitner, executive vice-president-finance and chief financial officer of Pan American World Airways Inc, has been elected chairman of PAN AM WORLD SERVICES, the airline's subsidiary. He will continue as Pan Am's chief financial officer, and as a board member of the parent company. Mr Klein E. Mitchell has been named vice-president-maintenance services at PAN AM WORLD SERVICES. In this new post, he will be responsible for the development of airline and aerospace maintenance servicing opportunities worldwide. Mr Mitchell, formerly vice-president-maintenance operations of Pan American World Airways, will also market Pan Am's surplus maintenance capabilities throughout the airline's global network. He will be based at John F. Kennedy International Airport, New York.

● Mr Anthony C. Herrling has been named manager, public relations, of VIDEO ENTERPRISES. He will assist in the development and execution of all public relations activities for the ABC Video Enterprises division of American Broadcasting Companies Inc. Mr Herrling comes to ABC from Broadcasting Magazine, where he was an associate editor, reporting primarily on cable television and financial developments in the communications industry.

● The U.S. President has nominated Mr Bernard A. Maguire to be associate director for the FEDERAL EMERGENCY MANAGEMENT AGENCY'S (FEMA) National Preparedness Programs Directorate. Mr Maguire was president and chief executive officer of the VPA Corporation of Virginia.

● Mr Genn F. Kummer, president and chief operating officer of FLETWOOD ENTERPRISES, INC., has been appointed to its board. He fills a seat created as a result of a by-law amendment increasing the size of the board from seven to eight members.

● Mr Peter H. Wood has joined SWETT AND CRAWFORD as vice president and manager of Leslie H. Cook, Inc, in Chicago. Mr Wood was vice-president of Alexander and Alexander, and Meeker Magner Company, both in Chicago.

FT INTERNATIONAL BOND SERVICE

U.S. DOLLAR STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	yield
Amex O/S Fin. 14¼ 89	75	112¼	112¾	0	−0¼	11.28
Amro Bank 13 89	200	105	105½	0	−0¼	11.78
BHP Finance 14½ 89	150	108⅞	109⅜	0	+0¼	12.57
British Col. Hyd. 15¾ 92	150	117⅛	117⅝	0	+0¼	12.02
Canada 14½ 87	750	110¾	111¼	0	+0¼	10.98
Canadair 12½ 89	175	104⅝	105⅛	0	0	11.36
Canadian Wheat 11¾ 90	50	100⅜	100⅞	0	+0¼	11.13
Can. Pac. Ltd. 14⅜ 92	75	110⅞	111⅜	−0⅛	+0¼	12.50
Can. Pac. Sec. 15 89	75	109⅝	110⅛	0	0	12.61
Citicorp O/S 15 84/92	100	104⅝	105⅛	0	0	9.96
Coca Cola Int. 9⅞ 92	100	24¾	25¼	0	−0¼	10.75
Coca Cola Int. 11¾ 89	100	105	105½	0	0	10.57
Credit Suisse 10½ 89	100	100⅝	101⅛	+0¼	+0¼	10.29
Deutsche Bk. F. 14⅛ 89	300	110½	111	0	−0⅛	11.73
Du Pont 11½ 95	150	101½	102	+0¼	+0¼	10.97
Du Pont 14½ 89 WW	200	107½	108	−0¼	+0¼	12.27
EDC 10¾ 88	100	99⅝	100⅛	0	+0¼	10.73
EDF 12⅜ 87	150	103⅞	104⅜	0	0	11.50
EEC 11½ 95	200	99⅛	99⅝	+0⅛	+0¼	11.59
EIB 11 91	125	97⅞	98⅜	+0¼	+0¼	11.37
EIB 15½ 92	100	114¼	114¾	0	+0¼	12.72
Exp. Dev. Cpn. 11⅜ 87	100	102¼	102¾	0	+0¼	10.98
Forsmarks 13¾ 92	75	105½	106	0	+0¼	12.64
Gaz de France 12¼ 93	175	19¾	20¼	0	0	12.24
Gen. Elec. Credit 9⅜ 91	100	14⅜	15⅛	0	0	10.68
Gen. Elec. Credit 12 89	100	106⅞	107⅜	+0¼	+0¼	10.41
GMAC O/S Fin. 10½ 90	200	97⅛	97⅝	+0¼	+0¼	11.02
GMAC O/S Fin. 15 87	100	108⅞	109⅜	+0¼	+0¼	12.05
Gulf Oil Fin. 12⅛ 87	100	103⅞	104⅜	0	−0¼	11.04
IBM Wld. Trade 12⅞ 92	200	109⅛	109⅝	+0¼	+0¼	10.57
Lloyds Euro. 11½ 94	100	17⅜	17⅞	0	−0¼	11.87
Manitoba Prov. 11⅜ 89	125	102⅜	102⅞	0	0	11.09
Manitoba Prov. 13¾ 89	100	108⅝	109⅛	0	−0¼	11.69
Midland Int. F. 11½ 92	150	99¾	100¼	−0¼	+0¼	11.48
Nat. West. Fin. 11¾ 92	150	101¼	101¾	−0¼	+0¼	11.48
New Brunswick 15⅜ 87	75	111⅜	111⅞	0	−0¼	11.65
Newfoundland 15½ 90	75	113⅜	113⅞	−0⅛	−0¼	12.53
Nippon Credit 11⅜ 93	100	97	97½	0	0	11.72
Nova Scotia Pr. 15⅜ 89	75	113⅜	113⅞	−0⅛	0	12.02
Ontario Hydro 11⅜ 89	200	102⅝	103⅛	0	−0¼	10.59
Ontario Hydro 12⅜ 92	200	106⅜	106⅞	−0⅛	0	11.54
Ontario Hydro 15 92	150	116⅜	116⅞	0	+0¼	11.92
Prudential O/S 10⅜ 93	100	99⅜	99⅞	0	+0¼	10.68
Prudential O/S 12⅜ 87	150	106⅛	106⅝	−0⅛	+0¼	10.86
Quebec Hy. 11½ 92 (D)	100	100⅜	100⅞	+0⅛	+0¼	11.37
R. J. Reynolds 12⅜ 89	100	105⅛	105⅝	+0⅛	+0⅛	11.47
Saskatchewan P. 15 92	150	116⅛	116⅝	0	−0⅛	11.97
Skand. Enskil. 11½ 88	100	†99⅛	99⅝	0	+0¼	11.67
SNCF 11½ 93	100	98½	99	0	+0¼	11.72
Swed. Exp. Cr. 14⅜ 90	100	108⅞	109⅜	+0¼	+0⅞	12.71
Swiss Bk. Cpn. 10⅜ 90	125	99⅞	100⅜	+0¼	+0¼	10.21
Texaco Capital 9⅜ 90	150	94½	95	−0⅛	−0⅛	10.86
UBS 11 89	150	102⅞	103⅜	−0⅛	+0⅛	10.36
Walt Disney Pr. 12⅛ 89	75	103⅞	104⅜	+0⅛	+0⅛	11.54
World Bank 10⅜ 88	150	98⅞	99⅜	+0¼	+0½	10.67
World Bank 10⅞ 93	100	97½	98	+0⅛	+0¼	11.25
World Bank 11⅜ 98	100	97⅞	98⅜	0	0	11.38

Average price changes... On day 0 on week +0⅛

DEUTSCHE MARK STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	yield
Aeroport Paris 8⅜ 92	80	101	101½	−0⅛	0	8.05
Asian D. B. 8⅜ 92	150	101¼	101¾	+0¼	+0⅛	8.01
Australia 6⅞ 93	200	99⅛	99⅝	+0¼	+0⅛	6.96
Australia 7¾ 92	200	105⅞	106⅜	+0⅛	+1⅛	6.85
Bank of Tokyo 7⅜ 90	100	100⅜	100⅞	0	+0¼	7.15
Bayer Capital 7⅜ 89	150	103⅛	103⅝	0	0	6.36
Beecham Fin. 8⅛ 92	125	102½	103	+0¼	+0¼	7.70
Caisse N. Energie 8 93	100	100½	101	0	+0¼	7.88
Caisse Nat. Tele. 7⅜ 93	200	98⅛	98⅝	−0¼	0	7.59
ECSC 7½ 93	150	99⅛	99⅝	−0¼	+0¼	7.58
EEC 7⅜ 95	200	100⅛	100⅝	−0⅛	+0⅛	7.70
EEC 8 94	200	101⅜	101⅞	+0¼	+0¼	7.79
GKN 8⅜ 89	100	99⅝	100⅛	−0⅛	+0¼	8.36
Gould Int. Fin. 8⅜ 89	75	102⅜	103⅛	0	−0⅛	7.87
H. J. Heinz Int. 6⅜ 88	50	99⅝	100⅛	+0⅛	−0⅛	6.81
Int.-Am. Dv. Bk. 8⅜ 93	150	101	101½	−0⅛	+0¼	8.05
Ireland 8⅞ 91	150	102⅝	103⅛	−0⅛	+0⅛	8.33
ITT Antilles 7 93	200	98½	99	+0¼	+0½	7.18
McDonalds Fin. 7⅞ 92	100	100⅝	101⅛	−0⅛	+0¼	6.96
Mitsui OSK 7⅜ 88	100	98	98½	−0⅛	−0⅛	7.89
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SWISS FRANC STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	yield
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Average price changes... On day +0⅛ on week −0⅛

YEN STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Australia 8⅜ 92	15	105⅛	106⅛	+0⅛	0	7.72
EIB 8¼ 92	15	102⅞	103⅞	−0⅛	+0⅛	7.79
Japan Airlines 7⅞ 87	9	†100½	101½	0	+0⅛	7.67
New Zealand 8⅜ 87	15	102½	103½	−0⅛	−0⅛	7.58
World Bank 8⅜ 92	20	103	104	0	+0⅛	7.82

Average price changes... On day 0 on week 0

OTHER STRAIGHTS	Issued	Bid	Offer	Change on day	Change on week	Yield
Br. Col. Tel. 17⅛ 88 C$	50	†112⅞	113⅞	0	+0⅛	13.64
Can. Utilities 17 87 C$	35	†113⅛	114⅛	0	0	12.66
Farm Credit 12⅛ 93 C$	50	†98⅞	99⅞	0	−0⅛	12.17
Gaz de France 15 88 C$	75	†106⅛	106⅞	0	−0⅛	13.41
Gaz Metro 14½ 92 C$	40	†103⅛	104⅛	0	0	13.74
Quebec Hyd. 14 92 C$	80	†106⅛	106⅞	0	0	12.76
Swed. E. Cr. 12⅛ 88 C$	50	†100	100½	+0⅛	+0⅛	12.16
EEC 11⅞ 93 ECU	50	98⅜	99⅜	0	0	11.81
Elf Norge 11⅛ 88 ECU	30	97⅜	98⅜	0	+0⅛	12.34
Amfas 9½ 87 Fl	60	104⅜	104⅞	0	+0⅛	8.25
Austria 7½ 88 Fl	100	99½	100	0	+0⅛	7.56
Nederland Gas 7½ 88 Fl	100	99⅝	100⅛	−0⅛	+0⅛	7.53
Neder. Middbk. 9⅜ 87 Fl	100	104	104½	−0⅛	−0⅛	8.12
Quebec Prov. 7½ 88 Fl	100	98⅞	99⅜	+0⅛	+0⅛	7.72
World Bank 7 88 Fl	150	98⅜	98⅞	0	0	7.34
OKB 14 86 FFr	400	97½	98½	0	0	14.86
Solvay et C. 14⅜ 86 FFr	200	96⅞	97⅞	+0⅛	+0⅛	15.91
BFCE 14½ 87 £	30	107⅜	108⅜	+0⅛	+0⅛	11.98
CECA 13½ 88 £	20	104⅛	105⅛	+0⅛	+0⅛	12.11
CNT 12½ 89 £	20	100⅝	101⅝	+0⅛	+0⅛	12.20
EEC 11⅞ 91 £	50	98½	99⅛	+0⅛	+0⅛	12.09
Fin. For Ind. 12⅜ 88 £	30	102⅛	103⅛	+0½	+0⅛	11.54
F. Mat. Oranj. 12⅜ 92 £	30	24⅛	24⅞	0	+1	12.71
Gen. Elec. Co. 12⅜ 89 £	50	104½	105½	0	+0½	11.28
Hiram Walker 14⅜ 86 £	25	106⅛	107⅛	0	+0⅛	11.56
Mort. Bk. Fin. 11⅜ 89 £	15	23⅞	24⅞	0	+0⅛	13.15
Norsk Hydro 12 90 £	30	27⅜	27⅞	0	+0⅛	12.76
Norsk Hydro 14½ 87 £	30	107⅛	108⅛	0	+0⅛	12.03
Quebec 14½ 89 £	30	106⅛	107	−0⅛	−0⅛	12.87
SDR France 15½ 92 £	30	106⅛	107⅛	−0⅛	−0⅛	14.15
SNCF 11½ 89 £	30	95⅜	96⅜	+0⅛	+0⅛	12.41
Tenneco Int. 14⅜ 87 £	30	106⅝	107⅝	0	−0⅛	12.48
World Bank 11⅜ 91 £	75	26⅛	27⅛	−0⅛	−0⅛	12.11
Euratom 11 93 LuxFr	500	102½	103½	+0⅛	+1	10.56
Europarat 12½ 92 LuxFr	500	103⅛	104⅛	0	0	11.72

FLOATING RATE NOTES	Spread	Bid	Offer	C.dte	C.cpn	C.yld
Bk. of Tokyo 5⅜ 91 (D)	0⅛	100	100⅛	10/6	9⅜	9.73
BFCE 5⅜ 88	0⅛	99⅜	99⅞	20/7	9⅛	9.34
BFCE 5⅜ 87	0⅛	99½	100	27/7	9.94	9.96
Caisse Nat. Tels. 5⅜ 90	0⅛	99	99⅜	21/4	10.56	10.64
CEPME 5⅜ 92	0⅛	99⅜	100⅛	10/6	9.94	9.95
Chemical NY 5⅜ 94	‡0⅛	100⅛	100⅜	23/3	9.94	9.89
Credit Agricole 5⅜ 97	0⅛	99⅛	99⅝	24/3	12⅞	12.96
Credit du Nord 5⅜ 92	0⅛	99⅛	99⅝	23/6	10⅛	10.19
Credit Lyonnais 5⅜ 97	0⅛	99	99½	1/4	12.19	12.28
Credit Lyonnais 5⅜ 94	0⅛	99	99½	5/7	9⅜	9.82
Credit Nat. 5⅜ 94	‡0⅛	98⅞	99⅜	9/9	9⅛	9.34
EDF 5⅜ 95 XW	0⅛	99⅜	99⅞	10/8	10	10.04
Kansallis Osake 5½ 92	0⅛	99⅞	100⅛	6/5	10.06	10.06
Lloyds Eurofin 5⅜ 93	§0⅛	100⅛	100⅜	29/4	10.56	10.52
Long Term Cred. 5⅜ 92	0⅛	100	100⅜	27/5	10⅛	10.11
J. P. Morgan 5⅜ 97	§0⅛	100⅛	100⅜	12/5	9½	9.45
Nat. West. Fin. 5⅜ 91	§0⅛	100⅛	100⅜	15/7	9⅛	9.22
New Zealand 5⅜ 87	0⅛	100	100½	7/4	12½	12.47
NZ Steel Dev. 5⅜ 92	0⅛	100	100½	22/6	10.19	10.16
Nippon Credit 5⅜ 90	0⅛	100⅛	100⅜	10/8	9⅞	9.84
Offshore Mining 5⅜ 91	0⅛	99⅞	100⅛	2/6	10.44	10.42
Scotland Int. 5⅜ 92	0⅛	99⅞	100⅛	23/3	13⅛	13.23
Sec. Pacific 5⅜ 91	0⅛	100⅛	100⅜	24/5	10.06	10.02
Societe Generale 5⅜ 95	0⅛	99⅛	99⅝	1/9	9½	9.56
Standard Chartd. 5⅜ 91	0⅛	99⅞	100⅛	18/5	10.69	10.67
Sweden 5⅜ 93	0⅛	99⅛	99⅝	3/8	10.19	10.24
Sweden 5⅜ 89	0⅛	99⅛	99⅝	26/8	9⅝	9.69

Average price changes... On day 0 on week +0⅛

CONVERTIBLE BONDS	Cnv. date	Cnv. price	Bid	Offer	Chg. day	Prem
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.77
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.71
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.60
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.46
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.67
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.58
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.74
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.31
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.13
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16.80
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.01
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31.27
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	28.01
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21.85
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.82
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.86
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.10
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	23.78
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.91
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32.86
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.23
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.44
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.27
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21.47
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.89

EUROBOND TURNOVER

(nominal value in $m)

	Cedel	Euro-clear
U.S. $ bonds		
Last week	4,901.2	10,800.7
Previous week	7,246.3	10,960.3
Other bonds		
Last week	1,525.5	782.3
Previous week	1,110.0	707.7

* No information available—previous day's price.

† Only one market maker supplied a price.

STRAIGHT BONDS: The yield is the yield to redemption of the mid-price; the amount issued is in millions of currency units except for Yen bonds where it is in billions. Change on week=Change over price a week earlier.

FLOATING RATE NOTES: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. C.dte=Date next coupon becomes effective. Spread=Margin above six-month offered rate (‡ three-month; § above mean rate) for U.S. dollars. C.cpn=The current coupon. C.yld=The current yield.

CONVERTIBLE BONDS: Denominated in dollars unless otherwise indicated. Chg. day=Change on day. Cnv. date=First date for conversion into shares. Cnv. price=Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem=Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

The list shows the 200 latest international bonds for which an adequate secondary market exists. The prices over the past week were supplied by: Kredietbank NV; Credit Commercial de France; Credit Lyonnais; Commerzbank AG; Deutsche Bank AG; Westdeutsche Landesbank Girozentrale; Banque Generale du Luxembourg SA; Banque Internationale Luxembourg; Kredietbank Luxembourg; Algemene Bank Nederland NV; Pierson, Heldring and Pierson; Credit Suisse/Swiss Credit Bank; Union Bank of Switzerland; Akroyd and Smithers; Bank of Tokyo International; Chase Manhattan; Citicorp International Bank; Credit Commercial de France (Securities) London; Daiwa Europe NV; Deltec Securities (UK); EBC; First Chicago; Goldman Sachs International Corporation; Hambros Bank; IBJ International; Kidder Peabody International; Merrill Lynch; Morgan Stanley International; Nomura International; Orion Royal Bank; Robert Fleming and Co.; Samuel Montagu and Co.; Scandinavian Bank; Societe Generale Strauss Turnbull; Sumitomo Finance International; S. G. Warburg and Co.; Wood Gundy.

Closing prices on March 18

UK COMPANY NEWS

C. H. Beazer rises to £2.3m and lifts interim dividend

AN INCREASE from £1.65m to £2.28m in pre-tax profits is reported by C. H. Beazer, the Bath-based property developer and contractor, for the half-year to December 31, 1982.

The interim dividend is raised from 2.7p to 3p net—last year's total was 8p from pre-tax profits of £4m. Dividends absorb £353,000 against £249,000.

Mr C. H. G. Beazer, the chairman, says housing continues to be the dominant activity in the group's trading, and he reports that the situation on a national basis appears to be improving. This should be reflected in a higher number of completions in the current year.

Building materials is now becoming one of the group's major activities and made a significant contribution to the half-year results. Altogether the group has five divisional activities and, in general, he says trading conditions have been competitive but, in spite of the severe recession, he is confident that the results for the full year will be satisfactory.

Beazer turnover for the first half improved substantially from £18.35m to £27.26m. There was a tax charge of £685,000 compared with £297,000.

Since the year-end, Beazer has acquired 50 acres of land in Oxfordshire and Berkshire for residential development for a total consideration of more than £3m.

An offer for R. Green Properties, made in December, was lapsed in February. There has since been an offer for Second City Properties. The recommended offer was made by County Bank, and a capital reorganisation of City is to be proposed to reduce expenses of the offer.

Harvard forms market for Norman Bailey

Licensed dealer Harvard Securities will be making a market in the shares of Norman Bailey Aviation following a placing of 1.17m shares, 58 per cent of the equity, at 34p each. Net proceeds will be used in the business.

Approximately half the company's business is helicopter maintenance. Norman Bailey also carries out work on fixed wing aircraft, has training schemes for helicopter pilots, operates, charter helicopters and sells aircraft on a brokerage basis.

In the eight months to November 30, 1982 the company made a £10,979 profit. It is forecasting not less than £81,000 for the period to December 1983.

Norfolk Capital Group falls further into the red

HOTELIER Norfolk Capital Group moved further into the red in the year to September 30 1982 from taxable losses of £29,248 to £395,501. Turnover edged ahead from £8.23m to £8.34m.

With losses per 5p share given as 2.08p (0.15p) the year's dividend is cut from 0.5p to 0.2p net.

Lady Joseph, chairman, says the increased losses were the inevitable consequence of closing the Royal Court Hotel, Sloane Square, for refurbishment for practically the whole of the year and of other refurbishment and development projects.

She says in due course the group should enjoy the returns obtainable from hotels of a higher standard but this cannot be achieved without considerable costs in the short-term.

The refurbishment at the Royal Court was only completed two months ago, and although initial trading has been encouraging, business is still building up and remains well below the levels which the directors confidently expect to achieve. This will affect the results for the current year, she adds.

There was no tax charge (£328 credit) and after an extraordinary credit of £290,837 (£190,000) for the surplus on the sale of hotels and properties, the attributable losses emerged at £104,664 (£219,100).

Current cost adjustments increased the taxable losses to £417,077 (£2,079).

Sharpe & Fisher up 11% to £1.29m

WITH a rise in second half taxable profits from £743,000 to £982,000, builders' merchant and DIY stores group Sharpe & Fisher ended 1982 11 per cent ahead at £1.29m, compared with £1.16m. Turnover for the 12 months advanced by 25 per cent from £27.04m to £33.87m.

The year's dividend is being raised by 11 per cent from 1.8p to 2p net with a final of 1.45p (1.25p). Earnings per share are given as 5.5p (4.8p).

The directors say that after a poor start to 1982 caused by the severe winter, the builders' merchant division improved substantially in the second half, and this improvement has continued so far into 1983.

The group's Sandfords DIY stores had another satisfactory year with increased profits they say. The surplus was arrived at after charging all initial costs of new branches at Gloucester and Newbury.

Tax took £384,000 (£364,000), leaving net profits of £902,000 (£792,000), while current cost adjustments reduced the taxable figure to £888,000 (£795,000) and earnings per share to 3p (2.6p). The dividend absorbs £331,000 (£297,000).

Friends' Provident expands in Canada

Friends' Provident Life Office, a major UK mutual life company is expanding its Canadian operations by acquiring a controlling interest in Seaboard Life Insurance Company of Vancouver. It is paying CARMA Limited of Edmonton C$15.6m for its 69 per cent equity holding in Seaboard and will make a public offer for the remaining shares at the same price of C$41 per share.

Friends' Provident already operates in Canada through its subsidiary, Fidelity Life Assurance Company, which is also based in Vancouver. Its area of operations is confined to the Western side of Canada. Premium income of Fidelity in 1981 was C$41m and assets amounted to C$106m. Business is mainly ordinary life, but the company is diversifying into pensions.

Seaboard had a premium income of C$34m in 1981 and assets of C$54m. The company offers specialist life insurance lines, but recently has expanded into ordinary life.

The two operations will compliment each other and Friends' Provident regard the two companies as providing a strong base for future development in Canada.

The deal has the approval of the Canadian Foreign Investment Review Agency and Friends' Provident has given an undertaking to the Agency to amalgamate the two companies within two years.

RMC GROUP TRINIDAD SALE

RMC Group, the producer of ready mixed concrete, is to sell off 60 per cent of its Trinidad company to local interests for a net TT$15.8m (£4.36m).

RMC will offer 7.2m stock units in Readymix (West Indies) for sale at TT$2.25 each but will retain a 40 per cent holding in the equity as well as representation on the board.

RMC has also agreed to provide technical services. It has reached agreement with the relevant Trinidad authorities for the offer for sale. Subscription lists open this week and close on April 5.

KENNINGS HAS 51% OF WESTERN OFFSHOOT

Western Motor Holdings and Kennings Motor Group have reached agreement whereby Kennings will subscribe for a further 133,796 ordinary shares of £1 each, at par, of Distributor Deliveries currently a subsidiary of WMH. This transaction, which will result in Kennings owning 51 per cent of the ordinary share capital of DD, is expected to be effective from May 1983.

The total amount to be provided by Kennings by way of additional shares and loans is £1m. As a result, the group borrowings of WMH will be reduced by the elimination of borrowings of DD and loan repayments, in total, amounting to £3.6m.

CHARTER/ANDERSON

Charter Consolidated has claimed that a statement issued by Anderson Strathclyde ignores the most important issues relating to Charter's bid for the company. These are:

● No account was taken of the interest cost and trading losses arising from the acquisition of National Mine Service Company. On a pre-tax annualised basis these could reduce Anderson's profits by £4.4m, Charter says.

● Anderson did not mention the cash flow implications of the NMS acquisition nor of its effect on the Anderson balance sheet.

● Anderson admitted "difficult trading and employment conditions" but failed to comment on the future, Charter points out.

RESULTS AND ACCOUNTS IN BRIEF

A. & J. MUCKLOW GROUP (property rental, estate development)—Net interim dividend of 2.1p (2p) for the six months to December 31 1982; pre-tax profits £2.41m (£2.33m); earnings per 25p share 3.67p (3.5p); gross rentals £3.24m (£3.09m); trading turnover £926,000 (£2.44m). Chairman says that the economic environment remains depressed but he expects a modest improvement in second half pre-tax profits.

MONTFORT (KNITTING MILLS)—Pre-tax loss for 1982, £346,049 (£706,930): turnover £10.88m (£9.81m), including exports of £1.14m (£748,689); tax release £78,430 (£20,893); extraordinary debits £70,703 (nil): loss deducted from reserves £341,822 (£719,670). Loss per 25p share 9p (22.88p) on a net basis, and 8.49p (22p) on a nil basis. Directors say group traded at a profit during final quarter.

BTR SOUTH AFRICA (62 per cent owned subsidiary of BTR)—For 1982: dividend 45 cents (65 cents); earnings per share 67.4 cents (106 cents); turnover R169m (£161m): pre-tax profits R23.9m (R27.2m). Directors not publishing forecast but confident in reorganisation and streamlining programme.

LONDON AND ST LAWRENCE INVESTMENT COMPANY—For six months to February 28 1983: revenue £180,000 (£151,000); total assets £8.04m (£5.87m); asset value per share 40.23p (28.41p). Chairman says gross revenue for full year expected to show increase over that previously reported, but perhaps less than present increase, due to timing of dividend payments.

GEORGE OLIVER (FOOTWEAR)—Results for 1982: Turnover £31.76m (£17.52m); pre-tax profit £1.43m (£1.31m) including property sales £412,000 (£196,000): tax credit £87,000 (£329,000 debit); extraordinary credits £1.04m (£1.83m); earnings per 25p share 27.91p (18.11p); dividend 6p (5.21p) net with final of 4.68p (4p).

LYON AND LYON (Ford main dealer, vehicle repairer)—Results for 1982: Turnover £11.99m (£10.05m); profits £209,000 (£354,000) before tax £10,000 (£50,000); earnings per share 5.91p (9.17p); dividend 5p (6p) with final of 3.5p (4.5p).

H. WOODWARD AND SON (commercial vehicle and car distributor, engineer)—For year to September 30 1982: Dividend 1.7p (1.7p) making 2.2p (2.2p); turnover £13.09m (£10.39m): pre-tax profits £211,500 (£180,916): tax £30,320 (credit £8,226): extraordinary debit nil (£29,507); stated earnings per share 7.52p (7.83p): CCA pre-tax profits £140 (£111).

GOODMAN BROTHERS (clothing manufacturer)—Results for six months ended October 31 1982: Turnover £5.21m (£5.28m), including exports £1.1m (£1.33m): pre-tax profits £88,000 (£183,000 loss).

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether the dividends are interims or finals and the sub-divisions shown below are based mainly on last year's timetable.

TODAY

Interims: Reliable Properties, Thomas Nationwide Transport.

Finals: Waverley Cameron, Willjay.

FUTURE DATES

Interims:

Kwik Save Discount	Apr 22

Finals:

Booker McConnell	Mar 29
Brixton Estate	Apr 20
CAMRA (Real Ale) Investments	Mar 23
Freemans	Mar 28
Glynwed International	Mar 28
Guardian Royal Exchange	Mar 30
Harris Queensway	Mar 25
Home Counties Newspapers	Mar 30
Ladbroke	Apr 7
Relyon	Mar 25
Weir	Mar 30

FT Share Information

The following securities have been added to the Share Information Service:

Austin (E.) & Sons (Section: Industrials).

English & Dutch Investment Trust NV (Part. Cert.) (Investment Trusts).

Insurance Corporation of Ireland (Insurance).

Sweden 13⅝% Loan Stock 2010 (Int. Bank & O'seas Govt. St. Issues).

SHARE STAKES

The North British Canadian Investment Company—Scottish Ontario Investments Company has disposed of 500,000 ordinary shares reducing holding to 137,500 shares (2 per cent).

Martin The Newsagent — Mr B. H. S. Martin, director, has acquired 11,500 ordinary shares. Mr J. B. H. Martin, Mr P. J. Martin and Mr D. W. Martin, directors, have each acquired 3,232 ordinary shares. Mr J. B. H. Martin, Mr P. J. Martin, Mr D. W. Martin and another have acquired as trustees a total of 156,500 ordinary shares. Mr P. J. Martin, Mr D. W. Martin and another acquired as trustees 10,000 ordinary shares in which Mr J. B. H. Martin has the entire beneficial interest.

Arthur Lee and Sons—Caparo Group has sold 1.5m ordinary shares reducing interest to 724,000 ordinary shares (2.34 per cent).

Alpine Holdings—Kean and Scott Holdings has acquired an interest in 1,077,500 ordinary shares (9.36 per cent).

Coalite Group—The company has been informed that Norwich Union Insurance Group hold 6,067,304 ordinary shares (7.055 per cent) of the issued capital.

Unigroup—Mr Harvey Michael Ross has reduced his holding in the company by 50,000 shares to a total of 315,920 (6.87 per cent).

Fleming Far Eastern—Prudential Corporation has disposed of 220,000 (0.44 per cent) ordinary. Their holding is now 5,728,884 (11.37 per cent).

Lake and Elliot — Yelverton Investments has disposed of its interest in 560,000 ordinary.

Bremner—The London Life Association holds 380,000 ordinary (6.884 per cent).

RECENT ISSUES

EQUITIES

Issue price	Amount paid up	Latest Renunc. date	1982/3 High	Low	Stock	Closing price	+ or −	Net Div.	Times Covered	Gross Yield	P.E. Ratio
140	F.P.	15/4	145	132	⁂Airship Inds.	133	..	—	—	—	—
112	F.P.	16/3	147	129	Assoc. British Ports	145	..	b7.0	1.5	7.0	13.5
—	F.P.	—	100	96	Atl'tc M'trp'n U.S.$.10	98	−2	Q8c	0.6	6.5	35.2
§100	F.P.	22/4	105	100	Br. Kidney Pat. As.	105	......	—	—	—	—
§74	F.P.	21/1	158	103	⁂Canvermoor	137	−2	b3.64	2.0	3.8	15.5
‖	F.P.	15/4	220	200	⁂Grainger Trust	200	...	u5.6	2.5	2.7	19.1
§38	F.P.	8/4	112	89	⁂HB Elect Comps 10p	100	...	u1.12	8.2	1.6	22.5
§190	F.P.	4/3	588	505	⁂Microgen	545	−10	b4.0	2.9	1.7	28.5
§155	F.P.	7/1	255	196	⁂Munford & White	212	−8	b2.6	2.4	1.8	33.5
§93	F.P.	4/2	198	145	⁂Resource Tech.10p	155	...	—	—	—	25.8
‖	F.P.	—	110	83	⁂Sinclair (Wm.)	85	−2	¶4.25	1.0	7.5	18.7
‖	F.P.	—	105	5	Do. Defd.	75	−2	—	—	—	—
275	F.P.	25/3	303	253	Superdrug Stores 10p	257	..	bd5.5	2.4	2.0	30.3
120	F.P.	—	125	100	⁂Swindon Priv Hos £1	105	..	—	—	—	—
§10	F.P.	11/3	29	22	⁂Tele.Services Int 10p	25	−1	b0.2	5.3	1.1	38.8
§72	F.P.	30/3	115	89	⁂Utd. Packaging 10p	114	..	b2.5	3.2	3.1	12.1
§150	F.P.	18/2	340	265	⁂WightCollinsR.S10p	275	−5	bd2.75	3.3	1.4	38.7
—	F.P.	3/5	25	20	Yorks & Lancs.W'rrnts	20	...	—	—	—	—

FIXED INTEREST STOCKS

Issue price £	Amount paid up	Latest Renunc. date	1982/3 High	Low	Stock	Closing price	+ or −
97.504	F.P.	4/3	102	88¼	BOC 12¼% Uns. Ln. 2012-17	95	−¼
99.431	£20	10/4	21⅞	12	Birmingham 11½% Red. 2012	16¾	−1
¶100	£10	9/6	10¾	10¼	E.WorcestershireWater 7% Rd. Prf.1990	10¾	...
**5	F.P.	31/3	224p	168p	Electro-Protective 7% Cnv. Prf.	168p	−4
18	£25	30/6	25½	24¼	Hambros Inv. 6-17% Stpd. Deb. 2018	25	−½
¶	F.P.	29/7	100½	100	Mid Sussex Water 7% Red. Pref. '88 90	100¼	......
—	—	—	100⅜	99	Nationwide Bdg. Soc. 11⅞% Bds. 25/1/84	100⅜	...
—	—	—	100⅞	100	Do. 11⅞% Bds. 15/2/84	100⅜	...
—	—	—	100⅛	100	Do. 11¼% Bds. 19/3/84	100⅛	−⅛
§97.174	£25	6/5	30½	22	Pearson (S) 13% Uns. Ln. 2007	29½	−⅜
¶100	£10	9/6	12	12	Sutton Dist. Water 7% Pref. 1988	12	......

"RIGHTS" OFFERS

Issue price	Amount paid up	Latest Renunc. date ●	■	1982/3 High	Low	Stock	Closing price	+ or −
250	F.P.	26/2	28/4	342	273	AGB Research 10p	335	−2
73	Nil	—	—	20pm	17pm	⁂Aidcom Int. 10p	20pm	+1
‖140	Nil	25/3	15/4	12½pm	1pm	⁂Airship Inds.	1pm	......
280	Nil	25/3	25/4	107pm	85pm	Applied Computer	102pm	−5
3½	Nil	4/5	28/3	18pm	9pm	Audiotronic 2½p	14 pm	−1½
11	Nil	—	—	2¼pm	1pm	⁂Berkeley & Hay Hill Inve 10p	1pm	...
50	F.P.	8/2	9/3	55	45	Cluff Oil 'B'	45	...
75	F.P.	7/3	16/3	105	85	Dominion Int. 20p	93	...
102	Nil	—	—	12pm	11pm	⁂Garfunkels 10p	12pm	...
163	F.P.	11/3	10/6	183	168	Gears Gross 10p	168	−4
90	F.P.	21/2	7/4	158	150	Grosvenor Group	156	−2
140	Nil	28/3	6/5	54pm	40pm	Magnet & Southerns	50pm	+1
25	F.P.	18/3	25/4	29	23	Mettoy	25	+1
27	F.P.	21/7	7/4	36	32	Mount Charlotte 10p	36	...
A$1.60	Nil	—	—	57pm	39pm	North B. Hill 50c	39pm	−1
60cts	F.P.	11/3	—	38	34	Rand Lon. Corp. 15cts	34	..
58	F.P.	3/2	29/4	73½	61	Stakis 10p	73½	+1
400	F.P.	4/3	22/4	490½	426	Ultramar	470	.....
81	Nil	28/3	6/5	31pm	25pm	Valor	25pm	−5

Renunciation date usually last day for dealing free of stamp duty. b Figures based on prospectus estimates. d Dividend rate paid or payable on part of capital: cover based on dividend on full capital. g Assumed dividend and yield. u Forecast dividend: cover based on previous year's earnings. H Dividend and yield based on prospectus or other official estimates for 1983. Q Gross. ‡ Cover allows for conversion of shares not now ranking for dividend or ranking only for restricted dividends. § Placing price. p Pence unless otherwise indicated. ¶ Issued by tender. ‖ Offered to holders of ordinary shares as a "rights." ** Issued by way of capitalisation. §§ Reintroduced. ¶¶ Issued in connection with reorganisation merger or take-over. ‖‖ Introduction. ⊓ Issued to former preference holders. ■ Allotment letters (or fully-paid). ● Provisional or partly-paid allotment letters. ★ With warrants. †† Dealings under special Rule. ⁂ Unlisted Securities Market. ‡‡ London Listing. ‡ Effective issue price after scrip. † Formerly dealt in under special rule.

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus*) have been officially notified. Dividends to be declared will not necessarily be at the amounts in the column headed "Announcement last year."

	Date	Announcement last year		Date	Announcement last year
Adwest	Apr 14	Interim 2.1	*Kleinwort Benson	Mar 29	Final 7.0
*Armstrong Equipment	Mar 23	Interim 0.35	*Kwik Save Disc.	Apr 22	Interim 1.6
Aurora	Apr 7	Final nil	*Ladbroke	Apr 7	Final 3.827
Automotive Prods.	Apr 8	Final 2.0	Laing (J.)	Apr 27	Final 1.875
*BAT Inds	Apr 7	Final 8.5	Laird	Apr 5	Final 2.0
*BICC	Mar 23	Final 7.04	Laporte	Apr 22	Final 3.5
*Babcock Intl.	Mar 30	Final 3.6	Lead Inds.	Apr 7	Final 5.96
Bank of Scotland	Apr 13	Final 11	Legal and General	Mar 31	Final 9.0
Barrow Hepburn	Apr 14	Final 1.4	*Lex Service	Mar 25	Final 4.2
*Bell (A.)	Mar 23	Interim 1.7	*Lucas Inds.	Mar 31	Interim 2.6
*Blackwood Hodge	Apr 15	Final 0.75	Marks & Spencer	Apr 29	Final 2.85
Blue Circle	Apr 28	Final 11.75	Menzies (J.)	Apr 20	Final 3.05
*Booker McConnell	Mar 29	Final 2.125	Minet	Apr 13	Final 2.69
Bowater	Apr 6	Final 7.25	Morgan Crucible	Apr 15	Final 4
Bowthorpe	Mar 31	Final 1.894	NEI	Apr 13	Final 2.75
*Brent Chems	Mar 22	Final 1.7	Newarthill	Apr 27	Final 8.0
*British Aerospace	Mar 29	Final 4.8	*Ocean Transport	Mar 23	Final 4.7
British Printing	Apr 5	Final nil	*Peachey Prop.	Mar 22	Final 4.7
*Britoil	Mar 25	Final due	Phoenix Assce.	Apr 7	Interim 2.25
Brown Boveri Kent	Apr 30	Final nil	*Prudential	Mar 23	Final 9.5
Bryant	Apr 5	Interim 1.0	RMC	Apr 21	Final 5.8
*Bunzl	Mar 29	Final 3.5	*Reckitt and Colman	Mar 29	Final 6.0
Burmah Oil	Apr 14	Final 7	Reed (Austin)	Apr 7	Final 2.46
*Cape Inds.	Mar 29	Final 1.7	Rockware	Mar 24	Final 3.0
*Charterhouse Group	Mar 28	Final 3.0	RTZ	Apr 15	Final 10.5p
*Chaterhouse Pet	Mar 23	Final 0.5	*Rugby Portland Cement	Apr 11	Final 2.65
Coates Bros.	Apr 8	Final 2.42	Rush and Tompkins	Apr 22	Final 2.75
Croda Intl.	Mar 31	Final 2.26	Samuel Props	Apr 22	Interim 1.3
Currys	Apr 19	Final 4.2	*Scottish Metropolitan	Apr 8	Interim 1.5
*DRG	Mar 23	Final 3.0	*Senior Eng.	Apr 8	Final 0.75
*Delta	Mar 28	Final 1.82	Simon Eng.	Apr 28	Final 8.6
*Dunlop	Apr 21	Final 2.0	*Slough Ests.	Mar 23	Final 2.075
*Eagle Star	Mar 23	Final 11.429	*Smith and Nephew	Mar 22	Final 2.7
Empire Stores	Apr 21	Final 1.35	Smiths Inds	Apr 20	Interim 4.0
*Exco Intl.	Mar 29	Final 2.5	Smith (W.H.)	Apr 28	Final 1.071
Expamet Intl.	Apr 7	Final 2.5	*Stndrd. Chrtrd. Bank	Mar 22	Final 23.2
Flight Refuelling	Apr 29	Final 2.35	*Sun Alliance	Apr 6	Final 23.6
*Freemans	Mar 28	Final 2.25	*Tarmac	Apr 26	Final 12.8
*Gill & Duffus	Apr 13	Final 4.8	Taylor Woodrow	Apr 15	Final 13.157
Glaxo	Apr 5	Interim 4.5	*Telephone Rentals	Apr 27	Final 5.15
*Glynwed Intl.	Mar 28	Final 4.9	Tozer Kemsley and Millbourn	Apr 17	Final 0.3
*GRE	Mar 25	Final 10.75	Travis and Arnold	Apr 26	Final 3.89
Hambro Life	Apr 14	Final 8.02	*Tricentrol	Mar 24	Final 5.6
*Harris Queensway	Mar 25	Final 3.0	*Weir	Mar 30	Final 1.75
Hawker Siddeley	Apr 21	Final 5.6	*Willis Faber	Mar 22	Final 10.7
*Hepworth Ceramic	Mar 24	Final 3.0	*Wimpey George	Apr 28	Final 1.95
*Highland Dist.	Apr 11	Interim 0.88			
*HME	Mar 21	Interim 2.5			
*Ibstock Johnsen	Mar 31	Final 3.0			
*IMI	Mar 29	Final 2.5			

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

BASE LENDING RATES

A.B.N. Bank	10½%	■ Guinness Mahon	10½%
Al Baraka Intl. Ltd.	10½%	■ Hambros Bank	10½%
Allied Irish Bank	10½%	Heritable & Gen. Trust	10½%
Amro Bank	10½%	■ Hill Samuel	§10½%
Henry Ansbacher	10½%	C. Hoare & Co.	†10½%
Arbuthnot Latham	10½%	Hongkong & Shanghai	10½%
Armco Trust Ltd.	10½%	Kingsnorth Trust Ltd.	12 %
Associates Cap. Corp.	11 %	Knowsley & Co. Ltd.	11 %
Banco de Bilbao	10½%	Lloyds Bank	10½%
Bank Hapoalim BM	10½%	Mallinhall Limited	10½%
BCCI	10½%	Edward Manson & Co.	12 %
Bank of Ireland	10½%	Midland Bank	10½%
Bank Leumi (UK) plc	10½%	■ Morgan Grenfell	10½%
Bank of Cyprus	10½%	National Westminster	10½%
Bank Street Sec. Ltd.	10½%	Norwich Gen. Tst	10½%
Banque Belge Ltd.	10½%	P. S. Refson & Co.	10½%
Banque du Rhone	11½%	Royal Trust Co. Canada	10½%
Barclays Bank	10½%	Roxburghe Guarantee	11½%
Beneficial Trust Ltd.	11½%	Slavenburg's Bank	10½%
Bremar Holdings Ltd.	11½%	Standard Chartered	‖10½%
Brit. Bank of Mid. East	10½%	Trade Dev. Bank	10½%
■ Brown Shipley	11 %	Trustee Savings Bank	10½%
Canada Perm't Trust	11 %	TCB	11 %
Castle Court Trust Ltd.	11 %	United Bank of Kuwait	10½%
Cayzer Ltd.	10½%	Volkskas Intl. Ltd.	10½%
Cedar Holdings	11 %	Westpac Banking Corp.	10½%
■ Charterhouse Japhet	10½%	Whiteaway Laidlaw	11 %
Choulartons	11½%	Williams & Glyn's	10½%
Citibank Savings	¶10 %	Wintrust Secs. Ltd.	10½%
Clydesdale Bank	10½%	Yorkshire Bank	10½%
C. E. Coates	11 %		
Comm. Bk. of N. East	10½%		
Consolidated Credits	11 %		
Co-operative Bank	*10½%		
The Cyprus Popular Bk	10½%		
Duncan Lawrie	10½%		
E. T. Trust	11½%		
Exeter Trust Ltd.	11½%		
First Nat. Fin. Corp.	13½%		
First Nat. Secs. Ltd.	13 %		
Robert Fraser	11½%		
Grindlays Bank	‡10½%		

■ Members of the Accepting Houses Committee.
* 7-day deposits 7.5%; 1-month 7.75%. Short-term £8,000/12-months 10.1%.
† 7-day deposits on sums of: under £10,000 7½%, £10,000 up to £50,000 8¼%, £50,000 and over 9%.
‡ Call deposits £1,000 and over 7½%.
‖ 21-day deposits over £1,000 8½%.
§ Demand deposits 7½%.
¶ Mortgage base rate.

Closing prices March 18

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
11⅞	5⅛	AAR	.44	4.0	26	116	11¼	11	11⅛	−⅛
38	27½	ACF	2.76	8.7	9	176	31⅝	31¼	31½	+⅜
20	12⅛	AMF	1.36	8.1	32	177	16⅝	16⅛	16⅝	+⅛
27¼	12⅛	AMR Cp				2018	27	26½	26¾	−⅛
13¼	4	AMR	wt			1416	13½	13	13¼	+⅛
18¼	12⅞	AMR	pf2.18	13.		90	17¼	16½	17¼	+⅛
30⅞	24⅞	AMR	pf2.13	7.1		144	30½	29¾	29¾	−⅝
6⅞	2½	APL			33	60	6¼	6⅛	6¼	+⅛
42¼	23⅞	ARA	2	4.6	13	1352	u44½	42¼	43⅞	+½
79⅞	24½	ASA	3a	5.2		601	58¼	57	57⅞	−⅞
27⅞	13⅞	AVX	.32	1.4	31	259	24⅛	23½	23½	+⅛
44⅝	27	AbtLab	1	2.4	18	2195	42¼	42	42¼	−¼
22½	15⅛	AcmeC	1.40	7.6	21	73	18½	18¼	18⅜	−⅛
12⅞	5⅛	AcmeE	.32b	2.7	31	31	11⅛	11½	11⅛	
13	4⅛	AdmDg	.04	.3	14	143	12⅞	12½	12⅞	+½
17⅞	12½	AdaEx	1.73e	11.		80	15⅛	15¼	15¼	−⅛
9⅞	4½	AdmMl	.20e	2.5	11	33	8⅛	7⅞	8⅛	
22⅞	12⅛	Advest	s.16	.8	13	109	20½	20¼	20½	+⅛
39¼	12½	AMD	s		64	413	35¼	35⅛	35½	+⅜
48¼	32⅞	AetnLf	2.64	6.8	6	3089	39	38⅝	39	+⅞
65	52⅞	AetL	pf3.70e	6.6		1032	56¼	55½	56¼	−⅛
37⅞	8	Ahmns	.80	1.8		153	34⅞	34	34	−⅞
4	2⅛	Aileen				136	3¼	3⅛	3⅛	
48⅞	23⅞	AirPrd	.80	1.8	13	395	43¼	43	43⅛	−⅛
24¼	8½	AirbFrt	.60	2.6	30	403	23¼	23	23	−⅛
2⅞	2	AlMoa	n		5	551	u3	2⅞	3	+⅛
31¼	24½	AlaP	pfA3.92	13.		14	31	30½	31	+⅛
7⅛	5⅞	AlaP	dpf.87	12.		25	7⅛	7	7	
71	54½	AlaP	pf 9	13.		240	70	69	69	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Continued on Page 21

هكذا اصل الأصل

AMERICAN STOCK EXCHANGE COMPOSITE CLOSING PRICES

Closing prices March 18

12 Month High	12 Month Low	Stock	Div.	Yld	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev Close
12½	5⅛	AAV	.32	2.7	8	5	12	12	12	-⅛
3¾	1	ATI			13	189	3¼	3	3	-⅛
7¾	1½	AcmePr			23	99	u7¾	7⅛	7½	+⅜
21¼	12¾	AcmeU	.40	2.0	18	10	20	19¾	19¾	-¼
22¼	2¼	Action			6	50	21¾	21½	21⅝	+⅜
9⅝	5⅛	Actons	10t	1.3		76	7⅞	7½	7⅝	
3¾	⅝	Actn	wt			26	1⅛	1⅛	1⅛	-⅛
6¼	1⅞	AdmRs	.10	4.7		3	2⅛	2⅛	2⅛	
27½	12	AdRusl	s.10	.4	25	43	24⅝	24½	24⅝	
21½	11⅜	Adobe	.20	1.3	11	75	16½	16	16	-⅛
3¾	2	AegisCp			9	120	3⅛	3	3	
21½	7⅞	Aerofx	1.55t	7.9	17	47	20¼	19⅝	19⅝	-⅛
6½	2⅜	Aeronca			10	72	5⅞	5½	5⅞	
21⅞	8¾	AfilHsp	.32	1.6	9	12	19⅝	19⅛	19½	+⅛
30½	16	AlllPd	a.64	2.1	15	16	30	30	30	+¼
10	3⅜	AlrSix			8	88	10	9⅝	10	+½
15½	4⅜	AirExp				78	13⅛	12⅝	12¾	-⅛
15⅞	3⅞	AlbaW	.10e	7	29844	15¼	14¾	14⅝		
20	6	AllenT	.75t	3.8		12	20	19½	20	+⅛
10⅜	6⅜	AlnySt		2	1288	52	9½	9⅛	9½	
10⅛	5¾	AlohaA				14	8⅝	8½	8⅝	
24¼	10¼	Alphal	6		28	15	21⅞	21¼	21½	+⅛
15⅞	7¼	AltamB	.49	2.9	12	9	14⅛	14	14	+⅛
1¼	½	Altec				891	1¼	1⅛	1⅛	
6	4⅝	Altec	pf			6	u6⅛	5½	6⅛	+⅜
2⅝	1⅞	Altex				267	1½	1⅜	1½	
37	25	Alcoa	pf3.75	11.		z100	35¾	35½	35½	-⅛
44½	17⅛	Amdhl	.40	1.0	172	903	41⅞	40	41⅞	+1⅞
28⅝	6¼	Amedc	s.12	.4	28	48	27½	27⅛	27½	+⅛
5	3½	AGIR	g			14	4¼	4¼	4¼	-⅛
3⅜	⅞	AmCap				7	3⅛	3	3	-⅛
28	8¼	AExp	wt			72	27	26⅝	26⅝	+⅛
15½	5¾	Alsrael			4	12	10¼	10¼	10¼	
15	8	AMzeA	.52	4.0	11	26	13⅛	13	13⅛	-⅛
[illegible]										

Continued on Page 22

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

Continued from Page 20

12 Month High	12 Month Low	Stock	Div.	Yld	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev Close
[illegible]										
41¼	31¾	WhitC	pfC3	7.2		4	41½	41½	41½	
38¼	14¾	Whttkr			18	137	36⅝	35⅜	36⅝	+⅛
28⅜	18	Whittak	1.60	6.4	9	1564	25⅛	25	25	-⅛
8	3	Wiebldt			62	122	7½	7⅛	7⅛	-¼

Continued on Page 22

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 per cent or more has been paid, the year's high-low range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividends are annual disbursements based on the latest declaration.

a–dividend also extra(s). b–annual rate of dividend plus stock dividend. c–liquidating dividend. cld–called. d–new yearly low. e–dividend declared or paid in preceding 12 months. g–dividend in Canadian funds, subject to 15% non-residence tax. i–dividend declared after split-up or stock dividend. j–dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k–dividend declared or paid this year, an accumulative issue with dividends in arrears. n–new issue in the past 52 weeks. The high-low range begins with the start of trading. nd–next day delivery. P/E–price-earnings ratio. r–dividend declared or paid in preceding 12 months, plus stock dividend. s–stock split. Dividends begins with date of split. sls–sales. t–dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u–new yearly high. v–trading halted. vi–in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd–when distributed. wi–when issued. ww–with warrants. x–ex-dividend or ex-rights. xdis–ex-distribution. xw–without warrants. y–ex-dividend and sales in full. yld–yield. z–sales in full.

WORLD STOCK MARKETS

Indices

NEW YORK

DOW JONES

	Mar. 18	Mar. 17	Mar. 16	Mar. 15	Mar. 14	Mar. 11	1982-83 High	1982-83 Low	Since Cmpil'n High	Since Cmpil'n Low
● Industr'ls	1117.74	1118.87	1116.00	1124.52	1114.45	1117.74	1141.74 (7/3/83)	776.92 (12/8)	1141.74 (7/3/83)	41.22 (2/7/32)
H'me Bnds	73.62	73.50	73.52	73.54	73.36	73.23	73.62 (18/3/83)	55.67 (12/2)	—	—
Transport	506.27	504.86	504.92	503.02	500.16	503.54	511.12 (4/3/83)	292.12 (12/8)	511.12 (4/3/83)	12.32 (8/7/32)
Utilities	128.25	126.34	126.85	127.26	128.88	126.98	129.84 (3/3/83)	103.22 (30/7)	163.32 (20/4/69)	10.5 (28/4/42)
TradingVol 000·1	75,119	70,298	63,576	62,410	61,650	67,240	—	—	—	—

● Day's high 1128.00 (1125.55) low 1109.71 (1108.07)

	Mar. 11	Mar. 4	Feb. 25	Year ago Approx
Indust'l div. yield %	4.66	4.78	4.86	6.99

STANDARD AND POORS

	Mar. 18	Mar. 17	Mar. 16	Mar. 15	Mar. 14	Mar. 11	1982-83 High	1982-83 Low	Since Cmpil'n High	Since Cmpil'n Low
Indust'ls	167.91	167.54	167.79	169.82	169.28	169.73	172.37 (7/3/83)	114.08 (12/8)	172.37 (7/3/83)	3.62 (30/6/32)
§Comp's'te	149.90	149.55	149.80	151.36	150.83	151.24	153.67 (4/3/83)	102.42 (12/8)	153.67 (4/3/83)	4.40 (1/6/32)

	Mar. 16	Mar. 9	Mar. 2	Year ago (approx
‡Indst'l div. yield %	4.34	4.24	4.22	6.08
Indust'l P.E ratio	12.82	13.11	11.89	7.37
Long Gov. Bond yield	10.66	10.66	10.39	13.14

N.Y.S.E. ALL COMMON

Mar. 18	Mar. 17	Mar. 16	Mar. 15	1982-83 High	1982-83 Low
86.57	86.22	86.43	87.22	88.66 (7/3/83)	58.80 (12/8)

Rises and Falls

	Mar. 18	Mar. 17	Mar. 16
Issues Traded	1,905	1,904	1,951
Rises	864	629	731
Falls	692	898	847
Unchanged	349	377	373
New Highs	124	91	119
New Lows	8	10	9

MONTREAL

	Mar. 18	Mar. 17	Mar. 16	Mar. 15	1982-83 High	1982-83 Low
Industrials	356.20	358.86	362.81	365.45	368.26 (10/3/83)	249.88 (21/6)
Combined	351.55	352.70	355.45	357.11	360.63 (10/3/83)	237.27 (21/6)
TORONTO Composite	2115.1	2118.9	2156.1	2148.4	2170.0 (7/3/83)	1352.2 (7/7)

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day		Stocks traded	Closing price	Change on day
Archer-Daniels	1,821,400	19⅞	−1⅛	Baldwin Utd.	836,000	19	−4½
Sony	1,500,800	15¾	+1	GTE Corp.	794,000	39⅞	−⅜
RCA	1,100,900	25	+1⅛	Gen. Motors	718,500	60	+½
Pub. S. Ind.	991,300	25⅝	+⅜	Mattel	688,100	12	−¼
K. Mart	884,800	33½	+1	Schlumberger	683,300	38½	−⅜

	Mar. 18	Mar. 17	Mar. 16	Mar. 15	1982-83 High	1982-83 Low
AUSTRALIA All Ord. (1/1/80)	505.4	510.4	515.9	515.4	595.6 (4/1/82)	445.2 (8/7)
Metals & Minls. (1/1/80)	459.1	470.8	477.8	477.4	502.2 (2/2/83)	289.5 (8/7)
AUSTRIA Credit Aktien (2/1/62)	52.55	52.26	52.24	52.50	56.90 (4/11)	47.35 (28/10)
BELGIUM Belgian SE (31/12/63)	111.51	111.29	111.04	110.84	111.51 (18/3/83)	86.42 (20/1/82)
DENMARK Copenhagen SE (3/1/83)	123.99	122.74	122.97	121.03	123.99 (18/3/83)	100.00 (3/1/83)
FRANCE CAC General (31/12/82)	111.0	111.2	111.2	109.9	111.2 (16/3/83)	96.1 (3/1/83)
Ind Tendance (31/12/82)	116.7	116.7	116.9	114.6	116.9 (16/3/83)	98.9 (3/1/83)
GERMANY FAZ-Aktien (31/12/58)	286.29	287.37	284.84	281.12	287.37 (17/3/83)	214.06 (17/8)
Commerzbank (Dec 1953)	861.6	865.4	857.8	844.5	865.4 (17/3/83)	650.2 (17/8)
HONG KONG Hang Seng Bank (31/7/64)	991.52	1007.26	1024.07	1024.51	1445.32 (12/1/82)	676.56 (2/12)
ITALY Banca Comm Ital. (1972)	210.62	203.75	202.61	202.14	212.88 (19/3/82)	147.25 (22/7)
JAPAN** Dow Average (16/5/49)	8254.9	8195.14	8179.15	8111.85	8254.9 (18/3/83)	6849.78 (1/10)
Tokyo New SE (4/1/68)	605.59	603.88	602.26	596.91	606.59 (18/3/83)	511.52 (17/8)
NETHERLANDS ANP-CBS General (1970)	118.9	118.5	118.5	116.5	118.9 (18/3/83)	84.8 (8/1/82)
ANP CBS Indust (1970)	102.2	101.2	101.1	99.8	102.8 (7/3/83)	66.2 (4/1/82)
NORWAY Oslo SE (4/1/83)	147.5	147.65	147.76	146.02	151.9 (18/2/83)	99.01 (4/1/83)
SINGAPORE Straits Times (1966)	847.20	851.06	852.95	843.11	852.95 (16/3/83)	557.07 (18/8)
SOUTH AFRICA Gold (1958)	693.8	718.4	743.2	789.9	1099.5 (15/3/83)	585.5 (8/7)
Industrial (1958)	841.1	842.5	841.1	857.1	865.9 (21/2/83)	607.5 (28/6)
SPAIN Madrid SE (31/12/82)	110.47	108.85	107.89	107.90	110.47 (18/3/83)	99.52 (11/1/83)
SWEDEN Jacobson & P. (1/1/58)	1316.85	1287.51	1296.68	1290.75	1316.85 (18/3/83)	663.52 (29.4)
SWITZERLAND SwissBankCpn. (31/12/58)	307.1	307.3	307.4	307.5	315.5 (25/2/83)	257.8 (17/8)
WORLD Capital Intl. (1/1/70)	165.4	—	165.8	164.8	166.6 (7/3/83)	118.4 (13/8)

(**) Saturday March 12: Japan Dow 8064.20. TSE 592.85.

Base values of all indices are 100 except Australia All Ordinary and Metals—500. NYSE All Common—50; Standard and Poors—10; and Toronto—1,000; the last named based on 1975. † Funding bonds. ‡ 400 Industrials. § 400 Industrials plus 40 Utilities. 40 Financials and 20 Transports. c Closed u Unavailable.

AUSTRIA

1982/3 High	1982/3 Low	Mar. 18	Price %
222	205	Credit'stalt Pfd.	215
220	163	Goesser	220
405	360	Intersunfall	370
208	174	Laenderbank	208
335	255	Perlmooser	335
178	140	Steyr Daimler	158
210	155	Veitscher Mag	200

BELGUIM/LUXEMBOURG

1982/3 High	1982/3 Low	Mar. 18	Price Frs.
1,700	980	ARBED	1,250
4,100	3,720	Bank Int A Lux	3,900
2,360	1,450	Bekaert B	2,310
1,845	1,230	Ciment BR	1,830
215	76	Cockerill	98
4,300	2,495	Delhaize	4,300
2,200	1,550	EBES	2,200
5,050	3,240	Electrobel	4,980
3,005	2,000	Fabrique Nat	2,850
2,960	2,180	G.B. Inno	2,760
1,770	1,200	GBL (Brux)	1,765
2,125	1,490	Gevaert	2,080
4,470	2,550	Hoboken	4,390
1,635	1,298	Intercom	1,635
5,130	3,990	Kredietbank	4,990
7,810	5,500	Pan Hldgs	7,810
5,100	4,290	Petrofina	4,700
6,550	4,300	Royale Belge	6,350
2,760	1,650	Soc. Gen. Banq	2,760
1,575	1,030	Soc. Gen. Belge	1,525
4,335	3,100	Sofina	4,335
2,470	1,820	Solvay	2,435
3,115	2,220	Traction Elect.	3,100
2,965	1,400	UCB	2,965
4,520	1,316	Vieille Mont.	4,520

DENMARK

1982/3 High	1982/3 Low	Mar. 18	Price %
410	294	Aarhus Olie	370
241	113.2	Andelsbanken	241
424	281	Baltica Skand	410
259.4	125	CopHandelsbank	259.4
509.6	301	D. Sukkerfab.	509.6
268.2	125.4	Danske Bank	268.2
146.2	74.0	East Asiatic	121
800	505	Forenede Brygg.	800
451	143	Forenede Damp.	191
275.5	142	GNT Hldg.	257
361	176.5	I.S.S.B.	345
416	170	Jydske Bank	416
2,295	1,400	Novo Ind.	2,150
247.6	117.5	Privatbanken	235.6
203	113	Provinsbanken	197
272	152.4	Smidth (FL)	227
675	465	Sophus Berend.	675
165	84	Superfos	145.4

CANADA

1982-83 High	1982-83 Low	Stock	Mar. 18
27⅛	15½	AMCA Intl.	24¾
22⅝	15¼	Abitibi	20
22¼	12¾	Agnico Eagle	14⅝
20¼	8	Alberta Energy	14⅛
40⅛	20⅝	Alcan Alumin.	36⅝
43¾	22¾	Algoma Steel	33
19	9⅝	Asbestos	13½
28¾	17⅛	Bk Montreal	28
41⅝	20	Bk Nova Scotia	40
4.80	1.05	Basic Resources	1.99
25⅞	16¾	Bell Canada	25
16⅞	7⅜	Bombardier	14¾
20	10¼	Bow Valley	16¼
—	—	BP Canada Res.	20⅛
28⅜	12¼	Brascan A	27⅜
6	2.35	Brinco	3.20
12½	5¾	B.C. Forest	11⅛
34	18¼	CIL Inc.	25⅛
13½	5⅛	CadillacFairview	7⅝
16⅜	8	Can Cement	16⅛
58¾	16⅝	CanNW Energy	24
38½	28¼	Can Packers	38⅛
41	18¼	Can Trusco	41
34½	16⅞	Can Imp Bank	34⅛
44⅝	25	Can Pacific	42¼
22	13	Can. Pac. Ents	21⅛
59½	31½	Can Tire	59½
14½	4⅞	Carling O'Kfe	13¾
25¼	15¼	Chieftain	22½
56¾	34	Cominco	49½
19⅞	13¾	Cons Bathst A	19½
8⅛	3	Coseka Res.	3.00
9¼	4	Costain	7⅞
5.12	0.75	Daon Devel	1.85
37	15⅝	Denison Mines	34¼
26¾	6¾	Dome Mines	18⅞
14⅝	2.58	Dome Petroleum	3.35
43½	27	Dom Foundries	42
20	13¼	Dom Stores	16¾
26	15½	Domtar	24⅝
72	33	Falcon Ltd.	63½
24¾	9⅛	Genstar	21⅜
28	6¼	Giant Y'knife	18½
2.43	1.80	Gt. West Life	1.95
17¼	10⅞	Gulf Canada	13⅛
5.87	1.26	Gulf Stream Res.	1.45
17	7⅜	Hawk Sid. Can.	16¾
24⅛	13⅜	Hudson Bay Mng	18
23¼	15	Hudson's Bay	22⅞
10⅛	4.75	Husky Oil	8⅝
37	18	Imasco	35½
32¾	20	Imp Oil A	28½
16⅞	10	Inco	16⅛
18½	9½	Indal	18
26¼	13¾	Inter. Pipe	26⅛
31¼	16½	Mac Bloedel	30
11¼	7	Marks & Spencer	9⅞
4.95	2.00	Massey Ferg	4.55
40	22½	McIntyre Mines	31
37¼	16	Mitel Corp.	28⅛
57	33	Moore Corp.	57
11¾	5¾	Nat. Sea Prods A	10
25	11⅝	Noranda Mine	23⅛
100¾	41½	Nthn. Telecom	96½
9⅝	5¼	Nova Alberta	8½
19¼	7	Oakwood Pet.	13¾
2.05	0.60	Pacific Copper	1.18
95	52	Pan. Can. Pet.	89
28	13⅝	Patino	21
25⅛	11	Placer Dev	21⅞
16¼	8¼	Power Corp.	14¾
9.62	1.75	Quebec Strgn.	5⅞
10	5⅛	Ranger Oil	7½
16	9½	Reed Stenhs A	15¼
47¼	27¼	Rio Algom	46
31½	18⅛	Royal Bank	30¾
24½	11⅝	Royal Trusco A	24¼
12¾	4.75	Sceptre Res.	5⅛
35½	19⅛	Seagram	34¼
27	15⅞	Shell Can Oil	20⅛
30¾	16¼	Steel of Can A	25⅝
12⅝	4.70	Teck B	10⅝
35	21⅞	Texaco Canada	29
31	17¾	Thomson News A	31
46	22	Toronto Dom Bk.	45¾
26	16¾	Transalta	22
28	16⅝	TrCns Can Pipe	25¼
25⅝	14⅛	Walker H. Res.	29
15⅞	11¾	Westcoast Trans	13¾
51	27	Weston (Geo)	51

FRANCE

1982/3 High	1982/3 Low	Mar. 18	Price Frs.
2,294	1,636	Emprunt 4½% 1973	2,012
9,860	6,490	Emprunt 7% 1973	8,690
3,287	2,195	CNE 3%	3,090
512	389	Air Liquide	463
550	380	BIC	459
1,210	602	Bouygues	742
1,568	1,160	BSN Gervais	1,495
961	650	CIT Alcatel	825
1,752	1,255	Carrefour	1,560
638	466	Club Mediter	575
620	440	GFAO	460
319	167	Cie Bancaire	308
152	108	Cofimeg	151.5
94	49.6	Creusot Loire	86.5
925	647	Darty	661
815	595	Dumez	673
358	240	Eaux (Cie Gen.)	270
167.9	93	Elf-Aquitaine	122
487	360	Gen. Occidental	470
95	40.8	Imetal	51
287	161.8	Lafarge-Copper	268
1,310	712	L'Oreal	1,310
1,786	1,370	Legrand	1,768
401	217	Maisons Phenix	400
1,786	1,115	Matra	1,158
852	577	Michelin B	791
755	595	Midi (Cie)	700
921	540	Moet-Hennessy	940
81	49	Moulinex	77
58.7	36.1	Nord Est	49.8
457	351	Pernod Ricard	455
260	145.5	Perrier	244.9
168	95.1	Petroles (Frq.)	166.5
195	104.1	Peugeot-SA	179.2
219	75.7	Poclain	94
178	106	Printemps (Au.)	118.5
385	149	Radiotech	373
1,074	760	Redoute	870
321.5	204.1	Roussel-Uclaf	276
162.2	78.5	Schneider	115.7
186.2	125.6	Sefimeg	185
810	474	Skis Rossignol	821
1,165	605	Telemech Elect.	1,035
260	119	Thomson (CSF)	183
254	200	Valeo	248

GERMANY

1982/3 High	1982/3 Low	Mar. 18	Price Dm
55.8	23	AEG-Telef.	50.8
580	373.5	Allianz Vers.	563
138	109	BASF	129.2
129.7	103.8	Bayer	126.5
293	179	Bayern-Hypo	293
330.5	261	Bayern-Verein	329.0
265.5	189	BHF-Bank	265.5
295.5	176	BMW	285.5
255	167.5	Brown Boveri	181
156.3	110	Commerzbank	150.3
81.8	42	Conti Gummi	80.3
451	275	Daimler-Benz	449
269.5	203	Degussa	259
175	118	Demag	169
216	125	D'sche Babcock	162.0
306	245	Deutsche Bank	306
167.5	113	Dresdner Bank	165.0
213	155.1	GHH	179.9
542	283.9	Hochtief	542
135.3	103.7	Hoechst	134.5
47	19.5	Hoesch	44
564	384	Holzmann (P)	550
149	102	Horten	145.5
180	134	Kali und Salz	170.5
265.2	176	Karstadt	259.0
249	130	Kaufhof	235.6
248	168	KHD	241.0
69.7	32.5	Kloeckner	43.0
69.5	49	Krupp	64
345	262.5	Linde	345.0
111.8	51	Lufthansa	108.5
197	129.5	MAN	166.0
162.8	126.4	Mannesmann	161.0
404	201	Mercedes Hlg.	396
273	191.5	Metallgesell.	329.5
870	610	Muench Rueck	820
226	171.5	Preussag	225.0
199	160.5	Rhein West Elect	188.3
300	216	Rosenthal	295.0
333	263	Schering	319
312	186.2	Siemens	310.7
92.1	65.1	Thyssen	80.4
191.8	139.2	Varta	187.5
154.9	117	Veba	154.5
137.5	99.8	V.E.W.	137.5
298	265	Verein-West	298
178.8	126	Volkswagen	166.8

ITALY

1982/3 High	1982/3 Low	Mar. 18	Price Lire
39,900	30,000	Banca Com'le.	34,975
290	65	Bastogi IRBS	290
5,950	1,849	Centrale	2,771
9,800	3,699	Credito Varesino	5,490
2,939	1,479	Fiat	2,939
83.6	24	Finsider	64
159,000	104,125	Generale (Assic)	130,500
3,400	1,920	Invest	2,640
42,000	21,500	Italcementi	41,510
160.25	81.25	Montedison	142
3,040	1,930	Olivetti	3,000
3,450	2,050	Pirelli Co.	3,450
1,860	1,149	Pirelli Spa.	1,860
1,020	580	Snia Viscosa	1020
20,100	9,900	Toro Assic.	13,699
15,890	6,320	do. Pref	10,799

NETHERLANDS

1982/3 High	1982/3 Low	Mar. 18	Price Fls
142	69	ACF Holding	150
149.8	60	Alhold	147
54.4	219	AKZO	64.4
361.5	92.8	ABN	358
123.1	78.0	AMEV	117.5
56.3	34.5	AMRO	56.5
204.5	104	Bredero Cert	181
73	29.5	Boskalis Westm.	46.7
47.5	25.3	Buhrmann-Tet	40
37	24.4	Caland Hldgs	28.6
259	131.2	Elsevier-NDU nv.	243
144	106	Ennia	137.5
79.5	55	EuroCom Tst	79.5
146.7	61.5	Gist.-Brocades	145
129.7	47.5	Heineken	125.3
24	11.5	Hoogovens	22.8
16.8	6.0	Hunter Douglas	15.8
25.7	13.6	Int Muller	23.6
167.5	81.5	KLM	165.9
33.2	20	Naarde'n	30.5
141.5	104.6	Nat Ned Cert	138.8
37.3	22	Ned Cred Bank	30.1
149	99.8	Ned Mid Bank	149
141	89	Nedlloyd	102.7
197	68.0	Oce Grinten	186
40.2	17	Ommeren (Van)	22.5
50.6	34.8	Pakhoed	50.6
39	27.1	Philips	38.8
38	3.0	Rijn-Scheide	4.9
268.5	155	Robeco	268
127.3	117.9	Rodamco	127.5
251.5	188.80	Rolinco	249.7
186.7	135.3	Rorento	184.5
100.8	71.8	Royal Dutch	100
95.3	67	Slavenburg's	82
236	175	Tokyo Pac Hg	231
211	145	Unilever	205.6
140	92	Viking Res	102
68.9	38	VMF Stork	64.3
92	43.7	VNU	76
101.5	41	West Utr Bank	101.5

NORWAY

1982/3 High	1982/3 Low	Mar. 18	Price Kroner
122	98	Bergens Bank	109
150	83	Borregaard	150
137.5	108	Christiania Bk.	117
153	115	Creditbank	126
79	35	Elkem	69
292.5	74	Norsk Data	212.5
366	248.5	Norsk Hydro	297.5
246	180	Storebrand	142.5

AUSTRALIA

[illegible]

SINGAPORE

[illegible]

SWEDEN

[illegible]

SWITZERLAND

[illegible]

HONG KONG

1982/3 High	1982/3 Low	Mar. 18	Price H.K.$
31.75	16.5	Bank East Asia	29.5
5.05	0.81	Carrian Invest.	0.87
22.50	6.2	Cheung Kong	9.5
17.80	10.5	China Light	14.2
6.55	1.55	Hang Lung Devel.	3.05
130	30.25	Hang Seng Bank	65.0
6.70	3.9	HK Electric	5.55
6.95	2.19	HK Kowloon Wh.	3.72
9.65	2.9	HK Land	4.12
12.30	7.2	HK Shanghai Bk.	9.0
37.75	25	HK Telephone	37.25
18.50	8.2	Hutchison Wpa.	14.2
18.50	11.5	Jardine Math.	13.5
5.15	2.2	New World Dev.	3.52
2.65	2.02	Orient O'seas	2.5
6.55	2.85	O'seas Trust Bk.	4.1
9.20	3.75	SKH Props	6.75
12.9	6.45	Swire Pac A.	11.7
6.90	2.60	Wheel'k Mard. A.	3.6
5.20	1.76	Wheel'k Mariti'e	2.1
3.25	0.79	World Int. Hldgs.	1.64

JAPAN

1982/3 High	1982/3 Low	Mar. 18	Price Yen
949	761	Ajinomoto	887
2,170	782	Alps Electric	2,170
610	403	Amada	565
355	228	Asahi Chem	294
713	430	Asahi Glass	369
498	392	Bridgestone	478
1,310	643	Canon	1,310
1,170	662	Casio Comp.	1,120
1,270	652	Chugai Pharm	1,140
369	200	Citizen	357
658	595	Daiei	610
766	360	Dai Nippon Ptg	746
536	363	Daiwa House	530
469	330	Ebara	345
1,450	752	Eisai	1,390
6,780	3,680	Fanuc	6,050
508	490	Fuji Bank	500
2,000	1,190	Fuji Film	1,770
1,270	1,005	Fujisawa	1,120
1,030	689	Fujitsu	965
2,290	1,480	Green Cross	1,580
550	450	Hasegawa	471
609	475	Heiwa Real Est.	548
858	541	Hitachi	796
1,420	1,010	Hitachi Credit	1,290
960	522	Honda	874
1,130	901	House Food	928
860	619	Hoya	841
348	251	Itoh (C)	331
1,190	770	Ito-Yokado	1,020
1,160	499	Iwatsu	1,110
629	360	JACCS	445
2,420	2,130	JAL	2,420
714	416	Jusco	597
376	310	Kajima	330
585	470	Kao Soap	585
873	580	Kashiyama	648
445	355	Kirin	400
1,010	685	Kokuyo	810
685	430	Komatsu	492
756	519	Konishiroku	635
335	320	Kubota	321
473	384	Kumagai	387
4,920	3,060	Kyoto Ceramic	4,910
649	314	Maeda Const.	523
900	486	Makino Milling	741
1,000	890	Makita	1,000

[illegible]

SOUTH AFRICA

[illegible]

SPAIN

[illegible]

NOTES—Prices on this page are as quoted on the individual exchanges and are last traded prices. § Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all.

AMERICAN STOCK EXCHANGE CLOSING PRICES

Continued from Page 21

[illegible]

NEW YORK CLOSING PRICES

Continued from Page 21

[illegible]

---

*

International Property Review

Every Friday the Financial Times publishes a detailed review of the activities in the UK and international property markets.

Specialist FT writers look at the background to the week's headline making news, profile leading personalities and examine trends in the property development market.

Similarly every Monday Financial Times journalists turn their attention to the building and engineering fields with particular emphasis on recently-awarded British and international contracts, general industry news and feature articles on major developments in these important economic sectors.

*

---

*

International Arts Guide

The Financial Times International Edition publishes a comprehensive guide to all major artistic functions in Europe and North America every Friday.

The latest productions in the visual and performing arts are listed while Financial Times critics offer topical reviews of the most recent cinema premieres in London.

The guide also appears in extended form daily with particular emphasis on music (Monday), opera and ballet (Tuesday), theatre (Wednesday) and exhibitions (Thursday).

*

BUSINESSMAN'S DIARY

UK TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Current	International Engineering Inspection and Quality Control Exhibition—INSPEX (01-643 8040) (until March 25)	NEC, Birmingham
March 22-25	London Fashion Fair (01-831 7855)	Olympia
March 22-24	International Tyre and Equipment Exhibition—BRITYREX (01-467 7728)	Cunard Exhibition Centre
March 28-30	British Wool Cloth Show (Bradford (0274) 724235)	Dorchester Hotel, W1
April 6-8	Fashion Fabrex (01-831 7855)	Olympia
April 9-11	London Black Fashion and Beauty Fair (01-272 5193)	West Centre Hotel, W6
April 12-14	Coal Preparation Technology Associated with Cost Efficiency—Symposium and Exhibition (061-832 6641)	National Agricultural Centre, Kenilworth
April 18-22	International Fire, Security and Safety Exhibition and Conference (01-387 5050)	Olympia
April 19-20	All Electronics Show—ECIF (Essex (0799) 22612)	Barbican
April 19-21	2nd Exhibition of Numerical Engineering Equipment and Services (01-579 9411)	Wembley Conference Centre
April 19-21	Fibre Optics Exhibition and Conference (Essex (0799) 22612)	The Brewery, EC1
April 24-27	Incentive Marketing and Sales Promotion Exhibition (01-688 7788)	Brighton
April 26-28	Site Equipment Demonstration—SED 83 (01-904 9504)	Hatfield

OVERSEAS TRADE FAIRS AND EXHIBITIONS

Current	International Technology Exchange and new products Fair—TECHEX '83 (01-584 5749) (until March 25)	Florida
March 23-27	Exhibition of Building Components and International Finishings and Sports Facilities (051-555 662)	Bologna
March 24-27	International Trade Fair for Garage Equipment—AUTOVAK (01-228 2880)	Amsterdam
March 25-28	2nd International Franchise Exhibition (01-439 3964)	Paris
April 11-13	Air Cargo '83 (0727 63213)	Amsterdam
April 16-25	67th Swiss Industries Fair (061 26 20 20)	Basle
April 19-23	World Energy Exhibition and Congress (Dorset (0202) 732648)	Hamburg
April 24-28	Construction Indonesia '84 (01-486 1951)	Jakarta
May 7-10	Manila Apparel Market Week (01-248 0742)	Philippines

BUSINESS AND MANAGEMENT CONFERENCES

Current	Irish Chemical Industry—2nd Economic Conference (Dublin (01) 605877) (until March 22)	Dublin
March 22	CBI: Pay bargaining in the next 10 years (01-379 7400)	Centre Point, WC1
March 22-23	FT Conference: The outlook for world grains (01-621 1355)	Inter Continental Hotel, W1
March 22-23	BSI/BRC conference on flat roofs: Warm and Dry (0442 48411)	Park Lane Hotel, W1
March 23	Chatham House: World trade issues between America and Europe (01-930 2233)	Chatham House, SW1
March 23	IFS: the 1983 Budget—its contents and implications (01-828 7545)	Regent Palace Hotel, W1
March 23	Macfarlane: Offshore tax planning in the UK. What would reintroduction of exchange controls mean? (01-637 7438)	Waldorf Hotel, WC2
March 23	External Wall Insulation Association: Insulation seminar (01-637 7481)	UMIST, Manchester
March 23-24	Clothing and Footwear Institute: focus on microcomputers (01-203 1091)	CFI Conference Centre, London
March 23-24	IPC: Quality—the key to manufacturing profitability—Inspex '83 (01-643 8040)	NEC, Birmingham
March 24	Macfarlane: International financial communications in a world recession (01-839 4300)	Press Centre, EC4
March 24-25	Symposium S.a.R.L.: Doing business in Singapore (47.01.43)	Luxembourg
March 25	Riba: The settlement of disputes (01-637 8991)	66 Portland Place
March 29-30	IWP: Office Automation—the management seminar (01-242 8697)	Hyde Park Hotel, SW1
March 29-30	Canadean: European fruit juice seminar (01-323 4606)	Cavendish Conference Centre, London
April 5-6	Economist: Europe and Japan—prospects for interdependence (01-839 7000)	Tokyo
April 12	CBI/IMS: Company initiatives on unemployment (01-379 7400)	Centre Point, WC1
April 13-15	Management Centre Europe: '83 International Tax Conference (219.03.90)	Brussels
April 14-June 2	FT Conference: FT City Course (01-621 1355)	Chartered Insurance Inst., EC2
April 21-22	FT Conference: Venture capital (01-621 1355)	Caledonian Hotel, Edinburgh

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week. The board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—
Glasgow Stockholders Trust, 181-195 West George Street, Glasgow, 12.00

BOARD MEETINGS—
Finals:
Waverley Cameron
Wiljay
Interims:
Reliable Properties
Thomas Nationwide Transport

DIVIDEND & INTEREST PAYMENTS—
AGB Research 2.8p
Abbey 1.41p
McKay Securities 1.65p
Mountview Estates 0.7p
Pfizer Inc 58 cts
Ransomes Sims and Jefferies 5½pcPf 1.925p
Wagon Industrial Hldgs 2p

TOMORROW

COMPANY MEETINGS—
Ashdown Invest Trust, 120 Cheapside, EC, 3.30
Crescent Japan Invest Trust, 4 Melville Crescent, Edinburgh, 12.30
Crest Intl Securities, 36 Dover Street, W, 11.00
Drayton Far Eastern Trust, 117 Old Broad Street, EC, 3.00
Drayton Japan Trust, 117 Old Broad Street, EC, 12.00
Glass Glover Group, Connaught Rooms, Great Queen Street, WC, 12.00
Kennings Estates, Manor Offices, Old Road, Chesterfield, 10.00
Lancashire and London Invest Trust, Great Eastern Hotel, Liverpool Street, EC, 12.00
Leda Invest Trust, 44 Bloomsbury Square, WC, 11.00
Meggitt Hldgs, East Cliff Court Hotel, Bournemouth, 3.00
New Tokyo Invest Trust, 4 Melville Crescent, Edinburgh, 12.15
ORE, Ladbroke Mercury Hotel, Bagshott Road, Bracknell, 11.00
Roo Estates Hldgs, 3-4 New Street, EC, 2.15
SGB Group, Waldorf Hotel, Aldwych, WC, 11.30
Vantage Securities, 7 Lincoln's Inn Fields, WC, 4.30
Wrexham and East Denbigh Water Company, 21 Egerton Street, Wrexham, 2.00

BOARD MEETINGS—
Finals:
Brent Chemicals Intnl.
Equity and Law Life Assurance Society
Smith and Nephew
Stag Furniture
Standard Chartered Bank
Watmoughs
Willis Faber
Interims:
A and G Security Electronics
Burton
Paterson Zochonis
Peachey Property
Ricardo Consulting Engineers

DIVIDEND & INTEREST PAYMENTS—
Bankers Trust Overseas Finance NV Gtd Fltg Rate Sub Notes 1994 $251.56
Copenhagen Handelsbanken AS DKr 15
Exchequer 12pcCnv 1985 6pc
Exchequer 12½pc 1990 6¼pc
Exchequer 13½pc 1992 6¾pc
Glasgow Stockholders Trust 1.5p
Glasgow Stockholders Trust 5pcPf 1.75p
Lancashire and London Invest Trust 2.875p
Lone Star Inds 47.5 cts
Siam Commercial (Cayman) Gtd Fltg Rates Notes 1984 $66.62

WEDNESDAY MARCH 23

COMPANY MEETINGS—
Drake and Scull Hldgs, The Churchill, Portman Square, W, 12.00
Edinburgh American Assets Trust, North British Hotel, Princes Street, Edinburgh, 12.00
First National Finance Corporation, Barber-Surgeons' Hall, Monkwell Square, EC, 2.30
First National Securities Hldgs, Barber-Surgeons' Hall, Monkwell Square, EC, 2.35
Frederick Park Group, Holiday Inn, St Nicholas Circle, Leicester, 11.30
Hunterprint Group, Ironmongers' Hall, Aldersgate Street, Barbican, EC, 2.30
Jebsens Drilling, Salters' Hall, 4 Fore Street, EC, 12.00
Kenning Motor Group, Manor Offices, Old Road, Chesterfield, 12.00
Moorside Trust, 44 Bloomsbury Square, WC, 10.30
Nottingham Manufacturing Co, Botany Avenue, Mansfield, Nottinghamshire 10.30
Prestige Group, Prestige House, 14-18 Holborn, EC, 12.00
Scottish American Invest Co, 45 Charlotte Square, Edinburgh, 12.00
Union Discount Company of London, 39 Cornhill, EC, 12.00
York Waterworks Co, Lendal Tower, York, 12.00

BOARD MEETINGS—
Finals:
BICC
Bestobell
Britannia Arrow
Britannic Assurance
CAMRA (Real Ale) Invs
Charterhouse Petroleum
Church
Clay (Richard)
Clifford's Dairies
Eagle Star
Fairview Estates
Jones and Shipman
Laing Properties
Manders
Ocean Transport and Trading
Prudential
Silkolene Lubricants
Slough Estates
United Newspapers
Interims:
Amalgamated Distilled Products
Armstrong Equipment
Bell (Arthur)
Bluebird Confectionery
Bridport-Gundry
City of Aberdeen Land Association
Makin (J. and J.) Paper Mills
Sirdar

DIVIDEND & INTEREST PAYMENTS—
ASEA AB SKr 10
Associated Newspapers Group 6¼pcLn 1989-94 2.73973p
Associated Newspapers Group 8¼pcLn 1989-49 3.83562p
Cambridge Water Co 3.5pc (formerly 5pc) Cons 1.75p
Cambridge Water 4.2pc (formerly 6pc) Red Pf 1984-86 2.1p
Cambridge Water 4.55pc (formerly 6½pc) Red Pf 1982-84 2.275p
Chemical New York NV Gtd Fltg Rate Sub Notes 1994 $248.44
Essex Water 3.5pc (formerly 5pc) Cons 1.75p
Essex Water 3.5pc (formerly 5pc) New 1.75p
European Invest Bank 11pcLn 2002 (Reg) £2.6899
Girozentrale Und Bank Der Ost Spark Fltg Rate Notes 1991 $25.00
Gold Fields of South Africa 107.10656p
Scandinavian Finance BV Stlg Fltg Rate Notes 1990 $27.74
Scotland Intl Finance BV Gtd Fltg Rate Notes 1992 $333.09
Serck 10¾pcDb 1991-96 5⅜pc
Vantage Securities 0.8p
Wrexham and East Denbigh Water 4pc (formerly 7pc) Cons 2.45p
Wrexham and East Denbigh Water 3.5pc (formerly 6pc) Red Pf 1985-87 2.1p
Wrexham and East Denbigh Water 4.2pc (formerly 6½pc) Red Pf 1985-87 2.1p

THURSDAY MARCH 24

COMPANY MEETINGS—
Bullough, Project Office Furniture, The Courtyard, 26 Euston Centre, Euston Road, W, 12.30
Cardinal Invest Trust, 1 Laurence Pountney Hill, EC, 12.00
Chester Waterworks Co, Aqua House, 45 Boughton, Chester, 4.00
Colne Valley Water Co, Blackwell House, Aldenham Road, Watford, 12.30
Dew (George), Belgrade Hotel, Oldham, 12.00
Eastbourne Waterworks Co, 14 Upperton Road, Eastbourne, Sussex, 11.45
Habit Precision Engineering, Roxby Place, SW, 11.00
Imperial Group, Hotel Inter-Continental, 1 Hamilton Place, Hyde Park Corner, W, 12.00
London and Lomond Invest Trust, 2 St Mary Axe, EC, 12.30
River and Mercantile Trust, 44 Bloomsbury Square, WC, 2.45
River Plate and General Invest Trust, 44 Bloomsbury Square, WC, 11.15
Scottish Agricultural Inds, Caledonian Hotel, Princes Street, Edinburgh, 12.00
Tribune Invest Trust, 8 Bishopsgate, EC, 2.30
Updown Invest Co, 12 Tokenhouse Yard, EC, 3.45

BOARD MEETINGS—
Finals:
BBA
Banro Inds
Bemrose
Friedland Doggart
Hepworth Ceramic
Matthews (Bernard)
Metal Closures
Noble and Lund
Squirrel Horn
Tricentrol
Interims:
Maynards
Minerals Oils and Resources Shares Fund
Pressac

DIVIDEND & INTEREST PAYMENTS—
Banco De La Nacion Argentina Fltg Rate Notes 1986 $64.73
Bullough 8.8p
Chester Waterworks 4.2pc (formerly 6pc Max) 2.1p
Chester Waterworks 3.15p (formerly 4½pc) Pf 1.575p
Chester Waterworks 3.15pc (formerly 4½pc) Red Pf 1979-84 1.575p
Chester Waterworks 3.85pc (formerly 5½pc) Red Pf 1983-88 1.925p
Chester Waterworks 4.55pc (formerly 6½pc) Red Pf 1983-88 2.275p
Continental Illinois Overseas Finance Corpn NV Gtd Fltg Rate Sub Notes 1984 $240.63
Halliburton 40 cts
Moorside Trust 2.5p
National Bank of Canada Fltg Rate Dbs 1988 $322.09
Sanwa Intntl Finance Fltg Rate Notes 1988 $641.04
Scottish American Invest 3.22p
Sentrust Beperk 50 cts
Sidlaw Group 7½pcLn 2003-08 3¾pc
Treasury 2½pc IL 2001 £1.5044
Union Discount of London 20p
Warner Estate Hldgs 5.5p
York Waterworks Cons 4.9pc (formerly 7pcMax) 2.45p
York Waterworks 3.5pc (formerly 5pc) 1.75p
York Waterworks 4.2pc (formerly 6pc) Red Pf 1983-84 2.1p
York Waterworks Cons Pf (4.2pcMax formerly 6pc) 2.1p

FRIDAY MARCH 25

COMPANY MEETINGS—
Arden and Cobden Hotels, Norfolk Hotel, Hagley Road, Birmingham, 12.15
Birmid Qualcast, Midland Hotel, New Street, Birmingham, 12.00
Bournemouth and District Water, 128 Queen Victoria Street, EC, 12.00
F & C Enterprise Trust, 1 Laurence Pountney Hill, EC, 12.15
Folkestone and District Water, Cherry Garden, Cherry Garden Lane, Folkestone, Kent, 11.30
Goode Durrant and Murray Group, Durrant House, 8-13 Chiswell Street, EC, 10.00
Hill and Smith Hldgs, Plough and Harrow Hotel, Hagley Road, Edgbaston, Birmingham, 12.00
Lonrho, Grosvenor House, Park Lane, W, 12.00
Pleasurama, Park Lane Hotel, Piccadilly, W, 11.30
Scottish United Investors, 37 Renfield Street, Glasgow, 10.45
Sutton District Water, 59 Gander Green Lane, Cheam, Surrey, 12.30
Trust of Property Shares, Park House, 16 Finsbury Circus, EC, 11.00
Ward Hldgs, 82 New Cavendish Street, W, 2.30

BOARD MEETINGS—
Finals:
A1 Industrial Products
Automated Security
Bridgewater Estates
Britoil
Firmin
Harris Queensway
Hurst (Charles)
Lex Service
Macallan-Glenlivet
Relvon
Interims:
Minerals and Resources
Pitco

DIVIDEND & INTEREST PAYMENTS—
Allied Colloids 0.65p
Ashdown Invest Trust 4.8p
Associated British Foods 5½pcLn 1987-2002 2¾pc
Associated British Foods 7½pcLn 1987-2002 3¾pc
Barker and Dobson Group12pcLn 1977-1984 6pc
Black and Decker Manufacturing 13 cts
Cinemas 5.25pcPf 2.625p
Cavenham 10¼pcLn 1998-87 5⅛pc
Cavenham 10½pcLn 1991-96 5¼pc
Centrovincial Estates 6¾pcLn 1988-93 3⅜pc
Chapman Industs 8½pc1stDb 1993-98 4¼pc
Charlwood Alliance Hldgs 7½pcLn 3¾pc
Chesebrough-Pond's Inc 46 cts
Dew (George) 3.4p
Fashion and General Invest 5p
Hanson Trust 9¾pcLn 2001-06 4⅞pc
Lonrho 9pc2ndDb 1987-92 4½pc
Lonrho 12¾pc2ndDb 1985-90 6⅜pc
Lonrho 12¾pc2ndDb 1980-83 6⅜pc
M & G Commodity and General Fund 2.1p
Manchester Corpn 3pcRed 1928 (or after) 1½pc
Massmutual Mortgage and Realty Invest 44 cts
Meat Trade Suppliers 1.75p
Metropolitan Water Chelsea WW 2¾pcDb 1987 1⅜pc
Mid-Sussex Water 3.5pc (formerly 5pc) Red Pf 1985-87 1.75p
Mid-Sussex Water 3.325pc (formerly 4¾pc) IrrdPf 1.6625p
Mid-Sussex Water 13¼pcRed Db 1985 6⅝pc
Northchart Invests 1.0272p
OCLI Intl Finance NV 9pcCnv Sub Gtd Dbs 1995 4½pc
Petrolane Inc 12.5 cts
Renold 8pcDb 1991-96 4pc
River and Mercantile Trust 5.6p
River Plate and Gen Invest Trust 4.6p
Russell's Gravesend Brewery 6pcPf 2.1p
Scottish and Mercantile Invest 2p
Scottish and Mercantile Invest A N-Vtg 2p
Scottish United Investors 1.07p
Smith Bros 1p
Sutton District Water 4.9pc (formerly 7pc) 2.45p
Sutton District Water 7pc (formerly 10pc) 3.5p
Sutton District Water 3.15pc (formerly 4½pc) Pf 1.575p
Sutton District Water 3.85pc (formerly 5½pc) Pf 1981-83 1.925p
Trafalgar House 8pcLn 1994-99 4pc
Trafalgar House 9½pcLn 200-05 4¾pc
Treat Hldgs 0.84p
Tyssefaldene Hydro-Elect Power 6pc1stLn 1974-84 6pc

SATURDAY MARCH 26

DIVIDEND & INTEREST PAYMENTS—
Agricultural Mortgage Corpn 14¼pcDb 1984 7⅛pc
Bournemouth and District Water 3.5pc (formerly 5pc) Cons 1.75p
East Surrey Water 4.55pc (formerly 6½pc) Pf 1981-83 2.275p
East Surrey Water 10pcPf 1986 5p
Exchequer 12¼pc 1999 6⅛pc
Petaling Tin Berhad 60 sen
Treasury 13½pc 2004-08 6¾pc
Treasury 12pc 1984 6pc
Vaux Breweries 11¾pcDb 2010 £1.9442

SUNDAY MARCH 27

DIVIDEND & INTEREST PAYMENTS—
Armitage Shanks 10pcLn 1989-94 5pc
Mersey Docks Harbour 3¾pcDb 1979-89 1⅞pc
Mersey Docks and Harbour 3½pcDb 1979-1989 1¾pc
Mersey Docks and Harbour 6¾pcDb 1996-1999 3⅜pc
Nationwide Building Society 11⅜pcBds 3/10/83 5$^{11}/_{16}$pc
Scottish Life Assurance 7⅛pcLn 1997-2002 3$^{9}/_{16}$pc

AMERICAN EXPRESS ®

AMERICAN EXPRESS INTERNATIONAL FINANCE CORPORATION N.V.

US Dollar Guaranteed Floating Rate Notes Due 1982
Extendible at the Noteholder's Option to 1985

NOTICE OF REDEMPTION

Notice is hereby given that, pursuant to paragraph 7 (b) of the terms and conditions of the notes, American Express International Finance Corporation N.V. has elected to redeem on April 22, 1983, all of the outstanding notes, which had previously been extended to 1985, at their principal amount. On April 22, 1983, the date fixed for redemption, there will become due and payable on the notes the principal amount thereof together with interest accrued thereon to the date fixed for redemption. Payment of the redemption price on the notes will be made on or after April 22, 1983, at the principal office of European American Bank & Trust Company, 10 Hanover Square, New York, N.Y. 10015, or at the offices of American Express Bank GmbH, 13-15 Bockenheimer Landstrasse, D-6000 Frankfurt 1, American Express Bank (Switzerland) AG, 20 Bahnhofstrasse, Zurich, Societe Generale Alsacienne De Banque, 15 Avenue Emile Reuter, Luxembourg, and American Express International Banking Corporation at 13-15 Leidsegracht, Amsterdam; Connaught Centre, Hong Kong; 4 Shenton Way, Singapore 1; 58-60 Moorgate, 6th Floor, London EC2; and 12-14 Rond Point des Champs Elysees, Paris 75008, upon presentation and surrender for redemption of the notes together with all coupons appertaining thereto maturing after the date fixed for redemption.

The coupons maturing on April 22, 1983, should be presented for payment in the usual manner. On and after April 22, 1983, interest on the notes will cease to accrue and unmatured coupons shall become void.

EUROPEAN AMERICAN BANK & TRUST COMPANY
(Fiscal Agent)

Dated March 21, 1983

BUSINESS LAW

Reliance on precedent costs £35m

BY A. H. HERMANN, Legal Correspondent

WHAT IS the price of nostalgia? To Shell International it was some £35m which the oil company did not recover from its insurers for the loss of crude oil loaded on the *Salem*.* The master and crew of the ship, in conspiracy with its owners, loaded the oil in Kuwait, manifestly for a European destination, unloaded almost all of it surreptitiously in a South African port (having previously obtained South African money) and then to cover up the theft scuttled the ship with the remaining oil on the high seas.

Shell relied on an insurance policy, the wording of which can only be explained by nostalgic hankering after things long past. The list of perils *insured* against read as follows:—

"Touching the adventures and perils which we the assurers are contented to bear *and do take upon us in this* voyage: they are of the seas, men of war, fire, enemies, pirates, rovers, thieves, jettisons, letters of mart and countermart, surprisals, takings at sea . . . and of all other perils, losses and misfortunes, that have or shall come to the hurt, detriment or damage of the said goods and merchandises, and ship, etc., or any part thereof. . . ."

Not only does the language sound strange, but even those words which still sound familiar have been qualified by legislation and judicial decisions so that they became "terms of art" and no longer have their ordinary meaning. Thus, one might come to the conclusion that Shell was covered because the policy insures against thieves, but Rule 9 of the construction of a marine policy in the First Schedule to the Marine Insurance Act 1906 excludes "clandestine theft or theft committed by crew or passengers."

One would have thought that Shell could have fallen back on *the Institute Cargo Clauses* (FPA) which were appended to the policy and of which Clause 8 reads: "In the event of loss the Assured's right of recovery hereunder shall not be prejudiced by the fact that the loss may have been attributable to the wrongful act or misconduct of the shipowners or their servants. . . ." But marine insurance lawyers agree that this could not apply because it was first added to rectify a 1924 decision of the Lords, excluding scuttling of a vessel from the perils of the sea.

The only peril on which Shell could fall back was the "taking at sea." For some 300-400 years this was taken to mean capture or seizure and not embezzlement (in the Scottish, wider meaning) of the cargo by the owners of the ship, its master or its crew. However, in 1969, a Denning Court of Appeal held in *The Mandarin Star* that "taking at sea" included also conversion of the goods by the *master of the ship to the use of* the shipowners. When the Salem case first came to trial in the High Court, Mr Justice Mustill was bound by *The Mandarin Star to find in favour of* Shell. On appeal, however, Lord Denning recanted and said that his much-criticised judgment in *The Mandarin Star* was based on a misunderstanding. The judgment was made *per incuriam* and should not be binding. Mustill was reversed, and Shell appealed further to the House of Lords.

> The House of Lords decision in Salem shows it is risky to rely on the Court of Appeal's interpretation of standard contractual clauses. Better use your own words.

The appeal was heard by their Lordships last month, and Mr Gordon Pollock QC argued *on behalf of Shell that as the* insurance cover was taken in the period between 1969 and 1982, when *The Mandarin Star* decision was law, it must be *assumed that it was the inten*tion of the parties to insure also against "taking" by ship owners and their servants. There was no sign of the London and other insurance mar*kets having taken any steps to* alter the standard form of policy or any of the institute clauses to circumvent that decision.

The Law Lords unanimously rejected this plea, agreeing with Lord Roskill who said that a decision only a few years old, and now conceded to be wrong, should not be deemed to be right because of the principle of *stare decisis*, especially when it was but a single deviation from several centuries of orthodox doctrine. Moreover, adherence to the heresy would in his view, cause great practical difficulty as endless disputes would be likely to arise whether and when any such "taking" was a "taking at sea."

As a result of this unanimous decision of the Law Lords, it will no longer be possible to rely immediately on the rulings of the Court of Appeal, binding as they are on lower courts and *the Court of Appeal itself*. One will have to wait and see whether they are not later declared a heresy. How long? Twelve years is obviously not enough, particularly if the judgment is criticised by commentators. Would 50 years be more acceptable, or should one extend to judgments the ancient rule that only dead authors are a recognised authority in court?

How much more simple it would have been had the Law *Lords said that the insurers* could have excluded the consequences of *The Mandarin Star* by adding to the policy after the "taking at sea" the words "but not by the owners, master or crew of the ship."

One can take different views of the doctrine of precedent. Some believe in its virtue—to others its shortcomings are *more evident*, but *few will* settle for a compromise under which one has to go to the House of Lords to establish whether a precedent was binding or not at the time a contract was made.

U.S. lawyers accept that "it must be presumed that if the terms in use in such (insurance) contracts have been judicially construed, that the parties contemplated that construction,† and also that "the judicial construction . . . made prior to the issuance of a policy will be presumed to have been the construction intended to be adopted by the parties; otherwise the language of the policy should have been modified to make the contrary intent clear."§

The archaic formulation of the Lloyds marine policy will soon be replaced by a modern form and one hopes that the confusion about "taking at sea," "barratry," and "mart" *and "countermart," whatever* they may mean, will disappear. But the confusion created by the Lords' decision in the *Salem* is *more fundamental and will* persist. While we should still believe that the intention of the parties is decisive for the meaning of the contract, we are no longer allowed to believe that when choosing the words to express their intention the parties followed the latest meaning given to the words by judges.

The confusion springs from the Lords' adherence to two contradictory and unreconcilable doctrines: the one says that judicial rulings are binding until reversed by a superior court, and the other that judges do not create law but only uncover it—which means that some of *the binding precedents can be* non-law and not binding.

** See FT Commercial Law Reports, February 22, 1983.*
† 1969 2 QB 449.
‡ Appleman's Insurance Law and Practice, 1976, 7404
§ Couch on Insurance, 2d, 15.20.

THE WEEK IN THE COURTS

Swift and sure way with debts

DEBTORS, SEEKING to stave *off the dreaded day when they* have to pay their debts, have often used the processes of the law to achieve at least a prolongation of their credit. The *delays of litigation have always* frustrated creditors who are driven to resorting to the courts to recover their debts

The law has always been acutely aware that, *while* no debtor should be prevented from defending any claim made against him, neither should the creditor be kept out of his rightful money judgment when there is really *no* defence to the claim. Thus the procedure was devised in the last century whereby a creditor could apply to the courts for summary judgment under what is known as Order 14. This is a process whereby the creditor issues a specially endorsed writ, supported by an affidavit setting out the facts of the indebtedness and the absence of any defence to it. If there is no demur from the debtor, the creditor is entitled immediately to sign judgment and enforce his judgment debt through the processes of the court.

But debtors frequently put in an appearance and swear an affidavit claiming that they have a defence to the claim and ask that the cases should proceed in the ordinary way to trial, with all the concomitant delays. The courts, however, retain the power, on a summons under Order 14, to determine whether any defence is disclosed in reality. If there is no disclosable defence, then the court will override the sworn evidence *and give the creditor his judgment.* If on the other hand the debtor shows some arguable defence, the court may give him either unconditional or conditional leave to defend the action. If the latter course is adopted, the defendant may be called upon to lodge in court the whole or part of the amount claimed, or to lodge security *for any appropriate amount*

One of the defects of the present system that has still to be *remedied is that in* the early stages of the Order 14 procedure the hearings are conducted behind closed doors. Summons is initially heard by a Master of the Supreme Court and on appeal from him to a judge in chambers. It is only *when (if at all)* the case is taken to the Court of Appeal that the parties' respective cases are heard in public.

Given this procedure it is not *uncommon for a debtor to use* the secrecy of the process as an additional delaying device. The practice is to resist the claim by putting in a lengthy and often spurious defence. The Master and Judge will, it is hoped, inevitably see through this tactic and give judgment for the creditor. But the debtor then gives notice of his appeal and before the public hearing borrows enough money to pay off the pressing creditor.

No one has yet challenged this procedure as being a violation of Article 6 of the European Convention on Human Rights.

Parliament has not yet thought of removing this obstacle to a sound administration of justice, but it has recently achieved one important reform in favour of creditors.

From 1894 until the passing of the Supreme Court Act 1981 a creditor could not appeal to the *Court of Appeal* against an *order of the judge in chambers* giving the debtor unconditional leave to defend. That provision was repealed in 1981, and not re-enacted. Already some creditors have been taking advantage of this change in the procedural law, and are taking their *cases to the Court of Appeal.*

That Court has been exhibiting a boldness that is both welcome and timely. An example is the judgment of Lord Justice Robert Goff who in *European Asian Bank v Punjab Sind Bank** asserted with firmness that the law's policy of preventing delay in cases where there is no discernible defence is all the more imperative in cases concerning a claim by a negotiating bank under a letter of *credit.*

In that case a West German bank which had conducted a substantial part of its banking activities in the Far East, including Singapore, had conducted business with an Indian bank with a branch office in London. Its ultimate claim in the courts was made under a letter of credit. It said that the Indian bank, as an issuing bank, was liable to it as a negotiating bank in the sum of $2,250,000, the sum due under a letter of credit. In 1981 the Indian bank had applied for a stay of the West German bank's action on the *grounds* that India or Singapore and not England, was the natural forum for the action to be determined. That application had failed and the action proceeded in England.

The outstanding issues were: Did the letter of credit permit negotiation by the West German bank so as to create privity of contract between the parties to it? If not, was the letter of credit so phrased as to be ambiguous and capable of a reasonable interpretation under which the West German bank was authorised to act as a negotiating banker, and was it entitled to act upon such an interpretation and hold the Indian bank liable to it under the letter of credit?

A third question arose as to whether the Indian bank was legally prevented from denying *that* the West German bank was entitled to negotiate the letter of credit. That led to the question whether the West German bank was not a negotiating bank (as it alleged it was) but was the agent of Singapore sellers for collection of the sum payable under the letter of credit so that it was open to the Indian bank to raise against the West German bank the issue of fraud under the contract of sale between buyer and seller. Mr Justice Staughton had regarded the third question as the vital one, and on that he found that there was a triable issue and gave the Indian bank unconditional leave to defend.

The Court of *Appeal* took a *different* view *of* the *third* question. The West German bank could not be regarded as an agent for the Indian bank. Nor could it be regarded as an agent of the issuing bank. The assertion that the West German bank was a mere agent for collection was unarguable.

Mr Justice Staughton had thought that a letter written by the West German bank to the Indian bank had contained a misrepresentation, namely, that the West German bank had already negotiated the documents under the letter of credit.

Lord Justice Robert Goff could not conceive of any way in which the Indian bank could have acted in any *material* way in reliance upon the misrepresentation, because it was a matter of total indifference to it whether the West German bank had negotiated the documents, or was still in the process of doing so.

On construing the relevant documents it was manifest that the Indian bank was unequivocally representing to the West German bank that it recognised *that the latter was* entitled to act as negotiating banker under the letter of credit, and the documents were in order. On the face of *the documents there was a liability* to pay the sum due under the letter of credit on the due date.

The Court of Appeal formed the *clear view that there was* no triable issue between the parties, and said that it would be wrong for the case to go for trial. Order 14 was appropriate to confer on the West German bank the right to summary judgment.

In essence, the Court of Appeal is asserting that where the law is clearly in favour of a creditor, and there are no issues of fact to be determined by oral evidence and the documentary *evidence* is unequivocal, there should be no obstacle to instant judgment. A swift and sure method of ensuring the payment of a undoubted debt should now invariably reflect the law's policy of justice to creditors.

** Times Law Report, 10 March 1983.*

Justinian

AUTHORISED UNIT TRUSTS

FT UNIT TRUST INFORMATION SERVICE

INSURANCES

هكذا الأصل

INSURANCE & OVERSEAS MANAGED FUNDS

Barclays Life Assur. Co. Ltd.—cont.

Income Accum.	106 1	111 7	-0.5	-
Do Initial	104.7	110 3	-0.5	-
Man Pens. Accum.	227.6	239 6		-
Do Initial	191 9	202.1		-
Gilt-Edg Pens. Accum.	200 1	210.7		-
Do Initial	162.9	171.5		—
Money Pens. Accum.	176 6	185 9		—
Do Initial	145.2	152.9	..	—

Black Horse Life Ass. Co. Ltd.
71, Lombard St., EC3. 01-623 1288

Black Horse Man. Fd		220.02	.....	—
Managed Inv. Fd.	149 52	157 38	...	—
Property Fd.	145.74	153.43	....	—
Fixed Interest Fd.	136.62	143 82	..	—
Cash Fd	131 76	138.70	...	—
Income Fd.	154 17	162.29	...	—
Extra Income Fd.	142.35	149.85	.....	—
Worldwide Growth Fd.	201 45	212.06	...	—
Balanced Fd.	162.10	170 64	...	—
Smlr Co's & Recv. Fd	194 48	204.72	...	—
Int. Technology Fd	233.16	245 44	...	—
Nth. Amer. & Gen. Fd.	149 45	157 32	...	—
Energy Int. Fd.	89.48	94.19	...	—
Pacific Basin Fund	118.97	125 24	...	—

British National Life Assurance Co. Ltd.
Harlands Rd, Haywards Heath. 0444 414111

Equity	94.2	99.2	-1.2	—
International	112.7	118.6	+1.2	—
Property	106.0	111.6	-0.6	—
Deposit	96.2	101.3	+0.1	—
Fixed Interest	95.6	100.6	+0.2	—
Managed	102.9	108.3	...	—
Equity Pens Cap.	93.2	98.1	-1.7	—
Intnl. Pens. Cap.	116.9	123.0	+1.5	—
Property Pens Cap	108.4	114.1	-0.9	—
Deposit Pens Cap	95.7	100.7	+0.1	—
Fixed Int Pens Cap	95 1	100.1	+0.2	—
Managed Pens Cap.	104.5	110.0	+0.2	—

Canada Life Group
2-6, High St., Potters Bar, Herts. P. Bar 51122

Equity Gth March 1		85.2	...	—
Rtmt. Fed. Feb 8		224.8	...	—
Managed Pen Fund	170.1	179.0	...	—
Property Pen Fund	110.3	116.1	...	—
Index Lnkd Pen Fund	118.9	125.2	...	—
Managed	108.8	114.6	-0.3	—
Property	97.9	103.1	+0.1	—
Gilt and Fixed Interest	98.2	103.4	-0.8	—

G.T. Management Ltd.
16 Finsbury Circus, Lond EC2M 7DJ 01 628 8131

G T Plan Bond Fund	124 5	131 1	+0 5	-
GT Pln High Yld Fnd	109 8	115 6	-0 5	-
GT Plan Far East Fnd	99 6	104 9	+1 9	-
GT Pln N Am Fund	145 1	157 0	+1 2	-
GT Pln UK&G E Fnd	126 7	133 4	-0 9	-
GT Pln Wrldwde Fnd.	121 9	128 4	+1 8	—
GT Pension Bnd Fnd	131 0	137 9	+0 4	-
GT Pen High Yld Fd	123 5	130 1	-0 5	—
GT Pen Far East Fd	109 1	114 9	+1 4	—
GT Pen N Am Fd.	192 0	202 2	+1 6	—
GT Pen UK & G.E. Fd.	141.1	148 6	-1 1	—
GT Pen Worldwide Fd.	129 4	136.3	+1.9	—

Assicurazioni GENERALI S.p.A.
117, Fenchurch St., EC3M 5DY. 01-488 0733

Intl. Managed Bond.	161.30	169 79	.	—

General Portfolio Life Ins. C. Ltd.
Crossbrook St., Cheshunt, Herts. Waltham X 31971

Portfolio Fd. Acc.		234.6	.....	—
Portfolio Fd. Init		198.5	...	—
Portfolio Fd. Cap.		226.6	.....	—
Investment A sts	234.5	247.0	..	—

Growth & Sec. Life Ass. Soc. Ltd.
48, London Fruit Exchange, E1 6EU 01-377 1122

Flexible Finance		1,413	...	—
Landbank Secs.		62.7	...	—
Landbank Sec. Acc.	172.4	176.8	...	—
G. & S. Super Fd.		£10.638	....	—

Guardian Royal Exchange
Royal Exchange, E.C.3. 01-283 7101

Guardian Assurance

Property Bonds	298.7	311.1	.....	—

GRE Linked Assurance Limited

Managed Initial	191.1	201.2	-0.9	—
Do. Accum.	209.4	220.4	-1.0	—
Equity Initial	237.9	250.4	-1.9	—
Do Accum.	260.7	274.4	-2.0	—
Fixed Int. Initial	185.3	195.0	+0.1	—
Do Accum.	203.0	213.7	+0.2	—
International Initial	193.9	204.2	-0.9	—
Do. Accum.	212.5	223 7	-1.0	—
Property Initial	122.2	128.6	...	—
Do. Accum.	133.7	140.7	...	—

OFFSHORE AND OVERSEAS

...om. Fund.	36 7	38 2	...	3 10
... Fund.	79 9	83.2	..	1 70
...s Metal Fund	122 3	127 4	...	8.30
...nd Cmdy. Fd.	43 0	44 0	...	2.26
...d Futures Fd.	116 6	121.4	.	—
...tl. Fnd.*	$0.941	0.979	......	—

NOTES

Prices are in pence unless otherwise indicated and those designated $ with no prefix refer to U.S. dollars. Yields % (shown in last column) allow for all buying expenses. a Offered prices include all expenses. b Today's prices. c Yield based on offer price. d Estimated. g Today's opening price. h Distribution free of UK taxes. p Periodic premium insurance plans. s Single premium insurance. x Offered price includes all expenses except agent's commission. y Offered price includes all expenses if bought through managers. Z Previous day's price. ¶ Guernsey gross. # Suspended. ♦ Yield before Jersey tax. † Ex-subdivision. ‡‡ Only available to charitable bodies. § Yield column shows annualised rate of NAV increase.

FT LONDON SHARE INFORMATION SERVICE

BRITISH FUNDS

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
		"Shorts" (Lives up to Five Years)				
18Ja	18Jul	Treasury 9¼pc '83	99½	13.12	9.27	9.81
22May	22N	Exch. 13½pc '83	101⅞	18.10	13.25	10.45
12Jun	12D	Exch. 10pc 1983	99½	5.11	10.02	10.19
15Jul	15Ja	Funding 5½pc '82-84‡‡	97¼	9.12	5.65	9.00
20Aug	20F	Exch. 11¼pc 1984	100⅞	14.1	11.15	10.19
22N	22May	Exchequer 14pc 1984	103⅝	18.10	13.52	10.66
19D	19Jun	Exch. 3pc 1984	94⅛	12.11	3.19	8.03
26Mar	26S	Treasury 12pc 1984	102⅛xd	17.2	11.76	10.46
22Aug	22F	Treasury 15pc 1985	107⅛	17.1	14.01	10.81
22S	22Mar	Exch. 12pc Cnv. '85	103¾xd	14.2	11.57	9.88
21N	21My	Treasury 3pc 1985	90⅛	15.10	3.33	8.05
15Jan	15Jul	Treasury 11½pc 1985	101¼	9.12	11.36	10.86
3 Sept		Treas 8¾pcCnv '85	96¾	—	9.04	10.24
22May	22N	Exch 12¼pc 1985	102⅜	18.10	11.97	11.20
25 Aug	25F	Exch. 11¾pc '86	101½	19.1	11.58	11.13
19N	19May	Treasury 3pc 1986	86⅝	13.10	3.46	7.85
19 Nov	—	Exch. 10½pc Cv '86(£25pd)	26½	—	10.53	10.38
12D	12Jun	Treasury 12pc '86	102⅛	5.11	11.75	11.18
10Ja	10Jul	Treasury 8¾pc '84-86‡‡	95¼	6.12	8.92	10.23
14Ja	14Jn	Treas. 12¼pc '86 Cnv.	108½	8.12	11.30	9.24
29Apr	29Oct	Exch. 14pc 1986	107⅛	22.9	13.05	11.44
22Jul	22Jan	Exch. 13¼pc 1987	106⅛	16.12	12.48	11.20
—		Exchequer 2½pc 1987	84⅛	—	2.97	7.18
Oct 6	Apr 6	Exch. 10½pc 1987	98¼xd	1.3	10.63	10.89
6 Oct	—	Ex. 10½pc '87A (£30pd)	29⅛	—	10.77	11.02
1N	1May	Funding 6½pc '85-87‡‡	90	27.9	7.22	9.49
14Ja.	14Jul	Treasury 3pc 1987	82¼	8.12	3.63	7.78

Five to Fifteen Years

Over Fifteen Years

Undated

Index-Linked & Variable Rate

INT. BANK AND O'SEAS GOVT. STERLING ISSUES

CORPORATION LOANS

COMMONWEALTH AND AFRICAN LOANS

LOANS

Public Board and Ind.

LOANS—Continued

Financial

Building Societies

FOREIGN BONDS & RAILS

AMERICANS

CANADIANS

BANKS, H.P. & LEASING

BANKS—Continued

Hire Purchase, Leasing, etc.

BEERS, WINES AND SPIRITS

BUILDING INDUSTRY, TIMBER AND ROADS

CHEMICALS, PLASTICS

CHEMICALS, PLASTICS—Cont.

DRAPERY AND STORES

ELECTRICALS

ELECTRICALS—Continued.

ENGINEERING MACHINE TOOLS

FOOD, GROCERIES, ETC.

FOOD, GROCERIES—Cont.

HOTELS AND CATERERS

INDUSTRIALS (Miscel.)

هكذا من الأصل

INDUSTRIALS—Continued

LEISURE—Continued

MOTORS, AIRCRAFT TRADES

Motors and Cycles

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING ADVERTISING

PROPERTY

INSURANCES

LEISURE

PROPERTY—Continued

SHIPPING

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TOBACCOS

TRUSTS, FINANCE, LAND

Investment Trusts

INVESTMENT TRUSTS—Cont.

Finance, Land, etc.

OIL AND GAS

OIL AND GAS—Continued

OVERSEAS TRADERS

PLANTATIONS

Rubbers, Palm Oil

Teas

MINES

Central Rand

Eastern Rand

Far West Rand

O.F.S.

Finance

Diamond and Platinum

MINES—Continued

Central African

Australians

Tins

Miscellaneous

NOTES

REGIONAL AND IRISH STOCKS

The following is a selection of regional and Irish stocks, the latter being quoted in Irish currency.

OPTIONS

3-month Call Rates

"Recent Issues" and "Rights" Page 16

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £600 per annum for each security

CURRENCIES, MONEY and CAPITAL MARKETS

FOREIGN EXCHANGES

EMS in a turmoil

BY COLIN MILLHAM

The continuing high level of Eurodollar interest rates, and little prospect of lower New York rates as the U.S. Treasury funding programme rumbles on, kept the dollar firm last week. At the same time the foreign exchanges became rather disillusioned with the European Monetary System as tension built up between Germany and some of its partners aobut how to contain the pressures within the system. France and Belgium, fighting to prevent a devaluation of their currencies, felt that the best answer to the problem was a revaluation against the European Currency Unit of the D-mark, and presumably the Dutch guilder. But the Government in Bonn had already made an effort to take some of the steam out of the situation by cutting 1 per cent from key Bundesbank lending rates, and fearing a worsening of Germany's competitive position said there was no need for a realignment of EMS parities. This was the official position ahead of the Brussels meeting of ministers at the weekend.

At the beginning of last week the Belgian National Bank introduced emergency foreign exchange restrictions making it almost impossible for Belgian banks to run forward positions against the franc. This had an immediate impact, pushing the Belgian currency from the bottom of the EMS to the top, but like the similar improvement of the French franc, which also touched the top of the EMS last week, the gains proved short-lived. The French franc was boosted by exceptionally high short term Eurocurrency deposit rates, rewarding holders of the currency by giving returns larger than any likely devaluation, and making speculation unacceptably expensive. But after an initial success the French and Belgian francs required further central bank support to keep within agreed EMS limits on Friday.

The Bundesbank intervened to help the French franc, Danish krone, Irish punt and Belgian franc at various times. Both the krone and punt remained at or near minimum allowed limits against the D-mark during the week, and are showing signs of suffering through being tied to such a strong currency. Denmark and Ireland only joined the Common Market when Britain decided to go in, and both have watched their currencies appreciate while sterling has weakened very sharply, falling to a record low against the D-mark on Friday.

EMS EUROPEAN CURRENCY UNIT RATES

	ECU central rates	Currency amounts against ECU March 18	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc ...	44.9704	44.4995	−1.05	+0.96	±1.5501
Danish Krone ...	8.23400	8.14672	−1.06	+0.95	±1.6430
German D-Mark	2.33379	2.25790	−3.25	−1.24	±1.0888
French Franc ...	6.61387	6.54423	−1.05	+0.96	±1.3940
Dutch Guilder ...	2.57971	2.50621	−2.85	−0.85	±1.5004
Irish Punt.........	0.691011	0.683614	−1.07	+0.94	±1.6691
Italian Lira	1350.27	1356.06	+0.43	+1.22	±4.1369

Changes are for ECU, therefore positive change denotes a week currency. Adjustment calculated by Financial Times.

OTHER CURRENCIES

Mar. 18	£	$		£ Note Rates
Argentina Peso...	96,114-96,314	64,440-64,490	Austria............	25.05-25.35
Australia Dollar..	1.7158-1.7195	1.1510-1.1517	Belgium............	73.75-74.50
Brazil Cruzeiro...	602¼-604¼	403.32-405.34	Denmark..........	12.84-12.87
Finland Markka..	8.0663-8.0893	5.4110-5.4130	France.............	10.33-10.75
Greek Drachma..	124.068-127.808	83.90-84.10	Germany...........	3.55¾-3.59¾
Hong Kong Dollar	9.8920-9.9910	6.6340-6.6390	Italy................	2115-2155
Iran Rial............	127.05*	84.00*	Japan...............	360-365
Kuwait Dinar (KD)	0.435-0.436	0.2921-0.2923	Netherlands......	3.93½-3.97½
Luxembourg Fr..	70.05-70.20	47.13-47.18	Norway............	10.69-10.79
Malaysia Dollar..	3.4110-3.4190	2.2890-2.2910	Portugal...........	141-175
New Zealand Dlr..	2.2773-2.2488	1.5279-1.5302	Spain................	189¼-204½
Saudi Arab. Riyal	5.1260-5.1330	3.4415-3.4435	Sweden.............	11.10-11.20
Singapore Dollar	3.1070-3.1160	2.0855-2.0875	Switzerland.......	3.06½-3.09½
Sth. African Rand	1.6175-1.6209	1.0861-1.0873	United States....	1.48¼-1.50¼
U.A.E. Dirham....	5.4690-5.4755	3.6720-3.6735	Yugoslavia........	112-122

*Selling rates

THE POUND SPOT AND FORWARD

March 18	Day's spread	Close	One month	% p.a.	Three months	% p.a.
U.S.	1.4860-1.5025	1.4865-1.4885	0.23-0.18c pm	1.65	0.48-0.43 pm	1.22
Canada	1.8200-1.8390	1.8210-1.8230	0.28-0.18c pm	1.52	0.55-0.45 pm	1.10
Nethlnd.	3.94-4.00	3.94¼-3.95¼	2⅛-1⅞c pm	6.46	6⅝-5⅞ pm	6.08
Belgium	70.00-70.80	70.05-70.20	100-200c dis	−25.67	110-210dis	−9.13
Denmark	12.81-12.96	12.83-12.86	15¾-17¼ore dis	−15.18	17½-19½ dis	−5.76
Ireland	1.0775-1.0900	1.0805-1.0835	0.74-0.98p dis	−9.54	1.65-2.19dis	−7.10
W. Ger.	3.55-3.59½	3.56-3.57	2-1½pf pm	5.89	5¼-4¾ pm	5.61
Portugal	138.5-142.0	139.0-141.0	na	—	na	—
Spain	197.5-199.5	197.5-197.8	na	—	na	—
Italy	2133-2153	2140-2145	22-32lire dis	−15.12	48-58 dis	−9.89
Norway	10.67-10.79	10.68-10.70	2½-3½ore dis	−3.44	8½-9½ dis	−3.39
France	10.25-10.42	10.25½-10.26½	52-62c dis	−66.60	56-66 dis	−23.76
Sweden	11.06-11.22	11.11½-11.13½	⅝ pm-¼ore dis	−0.20	¼-1½ dis	−0.40
Japan	356-360	357-358	1.30-1.10y pm	4.03	3.45-3.25 pm	3.75
Austria	25.00-25.25	25.07-25.12	12¾-10¼gro pm	5.62	34½-29½ pm	5.10
Switz.	3.06-3.10½	3.07½-3.08½	2-1½c pm	6.82	5⅞-4¾ pm	6.49

Belgian rate is for convertible francs. Financial franc 73.95-74.05. Six-month forward dollar 0.72-0.67c pm. 12-month 1.05-0.90c pm.

FORWARD RATES AGAINST STERLING

	Spot	1 month	3 month	6 month	12 month
Dollar	1.4875	1.4855	1.4830	1.4806	1.4778
D-Mark	3.5650	3.5475	3.5150	3.4711	3.3985
French Franc	10.27	10.84	10.88	10.9793	—
Swiss Franc	3.08	3.0625	3.03	2.9823	2.8974
Japanese Yen	357.5	356.3	354.1	350.9	345.9

BANK OF ENGLAND TREASURY BILL TENDER

	March 18	March 11		March 18	March 11
Bills on offer	£100m	£100m	Top accepted rate of discount	10.1879%	10.7695%
Total of applications	£555.75m	£407.475m	Average rate of discount	10.1643%	10.7473%
Total allocated	£100m	£100m	Average yield	10.48%	11.104%
Minimum accepted bid	£97.46	£97.315	Amount on offer at next tender	£100m	£100m
Allotment at minimum level	16%	35%			

CURRENCY MOVEMENTS

Mar. 18	Bank of England Index	Morgan Guaranty Change %
Sterling	78.9	−40.9
U.S. dollar	121.4	+11.5
Canadian dollar	90.9	−16.8
Austrian schilling	122.8	+31.2
Belgian franc	95.5	−0.6
Danish kroner	84.1	−9.9
Deutsche mark	131.5	+67.9
Swiss franc	148.8	+102.8
Guilder	120.8	+28.3
French franc	73.9	−19.5
Lira	51.6	−59.7
Yen	143.2	+37.4

Based on trade weighted changes from Washington agreement December 1971. Bank of England index (base average 1975=100).

CURRENCY RATES

Mar. 18	Bank rate %	Special Drawing Rights	European Currency Unit
Sterling	—	0.726977	0.632458
U.S. $	8½	1.08683	0.942362
Canadian $	9.53	*	1.15439
Austria Sch	3¾	18.2903	15.8600
Belgian F	14	51.2418	44.4995
Danish Kr	10	9.36847	8.14672
D mark	4	2.60046	2.25790
Guilder	3½	—	2.50621
French F	9½	7.53825	6.54423
Lira	18	1557.97	1356.06
Yen	5½	259.752	226.167
Norwgn Kr	9	7.80127	6.78501
Spanish Pta	—	144.277	125.195
Swedish Kr	8	8.10449	7.04840
Swiss Fr	4	2.24235	1.94617
Greek Dr'ch	20½	—	79.0642

* C$/SDR rate for March 17: 1.33465.

THE DOLLAR SPOT AND FORWARD

March 18	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	1.4860-1.5025	1.4865-1.4885	0.23-0.18c pm	1.65	0.48-0.43 pm	1.22
Ireland†	1.3740-1.3820	1.3740-1.3790	1.83-1.43c pm	14.16	3.55-2.90 pm	9.34
Canada	1.2242-1.2252	1.2242-1.2252	0.01cpm-0.02dis	−0.15	par-0.03 dis	−0.05
Nethlnd.	2.6535-2.6585	2.6535-2.6555	1.18-1.08c pm	5.11	3.35-3.25 pm	4.97
Belgium	47.07-47.18	47.13-47.18	50-70c dis	−15.27	85-105 dis	−8.06
Denmark	8.6100-8.6465	8.6100-8.6400	4¼-5¾ore dis	−7.29	9¾-10¾ dis	−9.48
W. Ger.	2.3855-2.4000	2.3955-2.3965	0.90-0.85pf pm	4.38	2.70-2.65 pm	4.46
Portugal	93.0-95.0	93.5-95.0	600-1800c dis	−152.78	1000-2200d	−67.90
Spain	132.65-133.10	133.00-133.10	150-350c dis	22.55	400-600dis	−15.03
Italy	1,424-1,436	1,435-1,436	20-28lire dis	−20.10	40-50 dis	−11.31
Norway	7.174-7.210	7.190-7.210	2.50-3.30ore dis	−4.83	7.70-8.50dis	−4.50
France	6.90-6.97	6.90-6.92	37-42c dis	−68.60	41-46 2dis	−25.18
Sweden	7.4565-7.4900	7.46-7.48	0.7-1.2ore dis	−1.52	2.7-3.2 dis	−1.58
Japan	238.70-240.60	240.20-240.30	0.53-0.43y pm	2.40	1.63-1.53 pm	2.63
Austria	16.81¼-16.84¼	16.81¼-16.81¾	6.00-5.20gro pm	3.99	17½-15 pm	3.86
Switz.	2.0570-2.0710	2.0695-2.0705	0.95-0.90c pm	5.36	2.83-2.78 pm	5.42

† UK and Ireland are quoted in U.S. currency. Forward premiums and discounts apply to the U.S. dollar and not to the individual currency. Belgian rate is for convertible francs. Financial franc 49.70-49.80.

EXCHANGE CROSS RATES

Mar. 18	Pound St'rling	U.S. Dollar	Deutschem'k	Japanese Yen	French Franc	Swiss Franc	Dutch Guild'	Italian Lira	Canada Dollar	Belgian Franc
Pound Sterling	1	1.488	3.565	357.5	10.27	3.080	3.948	2143.	1.822	70.13
U.S. Dollar	0.672	1.	2.397	240.3	6.904	2.071	2.654	1440.	1.225	47.14
Deutschemark	0.281	0.417	1.	100.3	2.881	0.864	1.107	601.0	0.511	19.67
Japanese Yen 1,000	2.797	4.161	9.972	1000.	28.73	8.615	11.04	5993.	5.097	196.2
French Franc 10	0.974	1.448	3.471	348.1	10.	2.999	3.844	2086.	1.774	68.28
Swiss Franc	0.325	0.483	1.157	116.1	3.334	1.	1.282	695.6	0.592	22.77
Dutch Guilder	0.253	0.377	0.903	90.56	2.602	0.780	1.	542.7	0.462	17.76
Italian Lira 1,000	0.467	0.694	1.664	166.9	4.793	1.438	1.842	1000.	0.850	32.73
Canadian Dollar	0.549	0.816	1.957	196.2	5.637	1.690	2.167	1176.	1.	38.49
Belgian Franc 100	1.426	2.121	5.084	509.8	14.65	4.392	5.629	3055.	2.598	100.

MONEY MARKETS

Rates fall despite sterling nerves

The money market could not totally ignore the continued weakness of the pound on the foreign exchanges last week, but if the authorities were not unduly concerned there seemed no reason why anyone else should get too excited.

Sterling has been fragile and vulnerable for seme time, but it has gradually become clear that this is much less to do with interest rates than the state of the world oil market. When Barclays Bank decided to raise its base rate to 11 per cent on January 11 the pound was around $1.56 and DM 3.66, but has since been below $1.49 and DM 3.56 on fears that the Opec agreement will not last and that Britain and Nigeria will lead the way to an oil price cutting war. It is hard to believe that sterling would have weakened further if base rates had been left at 10 per cent, and both the market and the authorities seem to want to return to that level.

Lloyds Bank helped to get Budget Day off to a good start by reducing its base rate to 10½ per cent, and was quickly followed by the other clearers. Before Lloyds' move discount house buying rates for eligible bills were already pointing to the cut, and continued to decline afterwards without any resistance from the Bank of England. The authorities first brought their band 4 intervention rate down to 10¾ per cent, but when the houses moved down again to 10½ per cent the Bank of England buying rate for similar dated paper was also reduced.

The official line was that the intervention rate on longer dated bills was brought into line with the market yield curve, and this was certainly true, but it also gave encouragement to those still looking for lower base rates.

Early morning assistance when the market was very short of funds on Thursday was also looked on with favour as a sign of the authorities' flexibility, although not necessarily bringing lower interest rates any nearer in itself.

On Friday afternoon the pound was at a record low against the dollar and D-mark, but interbank rates moved up only very slightly in nervous reaction. Base rates may soon be down to 10 per cent again, but given the present uncertainty about oil prices a return to single figures seems unlikely.

LONDON MONEY RATES

Mar. 17 1983	Sterling Certificate of deposit	Interbank	Local Authority deposits	Local Auth. negotiable bonds	Finance House Deposits	Company Deposits	Discount Market Deposits	Treasury Bills ♦	Eligible Bank Bills ♦	Fine Trade Bills ♦
Overnight	—	10½-12	—	—	—	11-11¼	10½-10¾	—	—	—
2 days notice	—	—	10⅝-10¾	—	—	—	—	—	—	—
7 days or	—	—	—	—	—	11¼	—	—	—	—
7 days notice	—	10¾-10⅞	10¾-10⅞	—	—	11⅛	10½-10⅝	—	—	—
One month	10½-10⅜	10¾-10½	10¾-10⅞	11⅛-11⅛	10½	11	10½	10½	10½	11 1/16
Two months	10 7/16-10 5/16	10⅝-10½	10⅝	11¼-11	10¾	10⅞	10¼	10⅜	10⅜	11
Three months	10⅜-10¼	10½-10 7/16	10½-10⅝	11⅛-10⅞	10½	—	10⅛-10¼	10¼	10¼	10⅞
Six months	10⅜-10¼	10 5/16-10 3/16	10⅝-10½	10¼-9⅞	10⅝	—	—	—	9⅞	10½
Nine months	10¼-10⅛	10 7/16-10½	10⅝	10⅝-10¼	10⅝	—	—	—	—	—
One year	10¼-10⅛	10 7/16-10½	10 7/16-10½	10½-10¼	10⅝	—	—	—	—	—
Two years	—	—	10¾-10⅞	—	—	—	—	—	—	—

ECGD Fixed Rate Export Finance Scheme IV Average Rate for interest period February 2 to March 1 1983 (inclusive) 11.391 per cent.

Local authorities and finance houses seven days' notice, others seven days fixed. Long-term local authority mortgage rates nominally three years 10¾-11⅛ per cent; four years 10⅞-11¼ per cent; five years 11-11½ per cent. ♦Bank bill rates in table are buying rates for prime paper. Buying rate for four month bank bills 10 5/16 per cent; four months trade bills 10 11/16 per cent.

Approximate selling rate for one month Treasury bills 10 11/32 per cent; two months 10¼ per cent; and three months 10⅛ per cent. Approximate selling rate for one month bank bills 10 11/32 per cent; two months 10 5/16 per cent; and three months 10 3/16 per cent; trade bills 10 11/16 per cent; two months 10¾ per cent and three months 10⅝ per cent.

Finance Houses Base Rates (published by the Finance Houses Association) 11½ per cent from March 1 1983. London and Scottish Clearing Bank Rates for lending 10½ per cent. London Deposit Rates for sums at seven days' notice 7½ per cent.

Treasury Bills: Average tender rates of discount 10.1643 per cent. Certificates of Tax Deposit (Series 6). Deposits of £100,000 and over held one month 10¼ per cent; one-three month 10½ per cent; three-six month 10½ per cent; six-12 month 10½ per cent. Under £100,000 10¼ per cent from March 16. Deposits held under Series 3-5 10¼ per cent. The rate for all deposits withdrawn for cash 8 per cent.

INTEREST RATES

EURO-CURRENCY INTEREST RATES
(Market closing rates)

Mar. 18	Short term	7 days notice	Month	Three Months	Six Months	One Year
Sterling	10¾-11	10¾-11	10 11/16-10 9/16	10⅝-10½	10 7/16-10 5/16	10½-10 3/16
U.S. Dollar	8¾-9	8⅞-9⅛	9⅛-9⅜	9 3/16-9 5/16	9 5/16-9 7/16	9 5/16-9 7/16
Can. Dollar	8-9	8½-9½	9-9¼	9 1/16-9 3/16	9⅝-9⅞	9¾-10
D. Guilder	4 1/16-4 3/16	4 1/16-4 3/16	4 3/16-4 5/16	4 5/16-4 7/16	4 7/16-4 9/16	5 1/16-5 3/16
S. Franc	3½-3¾	3½-3¾	4⅜-4⅝	4-4⅛	4-4⅛	3 15/16-4 1/16
Deutschm'rk	4 5/16-4 7/16	4 5/16-4 7/16	4⅞-5	4 15/16-5 1/16	5 1/16-5 3/16	5¼-5⅜
Fr'nch Franc	25-100	320-360	77-87	34-37	25-27	20-22
Italian Lira	18-28	21⅝-36⅛	21⅝-28⅛	19½-22½	19¼-21¼	19-20¼
Belg. Franc Conv.	16-32	25-42	20-25½	15¼-18	14½-15¾	12¾-14½
Fin.	17-18	16½-17	15⅛-15⅝	14⅜-14⅝	12⅞-13⅛	12⅝-12⅞
Yen	6⅞-7	6⅞-6 15/16	6⅞-7	6 11/16-6 13/16	6 9/16-6 11/16	6 7/16-6 9/16
D. Krone	26-28	34-36½	24⅛-25⅛	16-16¾	15⅜-15¾	15⅛-15¾
Asia $ (Sing.)	8 15/16-9 1/16	9 1/16-9 3/16	9¼-9⅜	9⅜-9½	9½-9⅝	9 7/16-9 9/16

FT LONDON INTERBANK FIXING
(11.00 a.m. MARCH 18)

3 month U.S. dollars		6 months U.S. dollars	
bid 9 3/8	offer 9 1/2	bid 9 1/2	offer 9 5/8

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 am each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

MONEY RATES

NEW YORK

Prime rate	10½
Fed funds (lunch-time)	8¾-9
Treasury bills (13-week)	8.41
Treasury bills (26-week)	8.46

GERMANY

Lombard	5.0
Overnight rate	5.05
One month	5.275
Three months	5.325
Six months	5.325

FRANCE

Intervention rate	12.5
Overnight rate	12.875
One month	12.8125
Three months	12.6875
Six months	12.3125

JAPAN

Discount rate	5.5
Call (unconditional)	6.65625
Bill discount (3-month)	6.84375

SWITZERLAND

Discount rate	4
Overnight rate	1½-2½
One month	4-4 3/16
Three months	4-4 1/16

NETHERLANDS

Discount rate	3½
Overnight rate	4½-4⅝
One month	4-4½
Three months	4⅝-4¾
Six months	4½-4⅝

$ CERTIFICATES OF DEPOSIT

One month	8.85-8.95
Three months	8.95-9.05
Six months	9.10-9.20
One year	9.30-9.50

LONG TERM EURO $

Two years	10⅛-10⅜
Three years	10¾-11
Four years	11⅛-11⅜
Five years	11½-11⅝

SDR LINKED DEPOSITS

One month	14 11/16-15 3/16
Three months	10 9/16-10 13/16
Six months	9 11/16-10 1/16
One year	9⅝-9¾

ECU LINKED DEPOSITS

One month	21⅞-22⅞
Three months	11¾-12¾
Six months	11¾-12¼
One year	10¾-11¼

FINANCIAL FUTURES

LONDON

THREE-MONTH EURODOLLAR $1m points of 100%

	Close	High	Low	Prev
June	90.48	90.49	90.42	90.55
Sept	90.26	90.28	90.23	90.33
Dec	90.09	90.10	90.10	90.14
March	90.00	—	—	90.06
June	89.90	—	—	—

Volume 762
Previous day's open int. 3,739

THREE-MONTH STERLING DEPOSIT £250,000 points of 100%

	Close	High	Low	Prev
June	90.06	90.17	90.00	90.18
Sept	90.14	90.23	90.07	90.23
Dec	90.14	90.22	90.22	90.21
March	90.16	—	—	90.22
June	90.16	—	—	—

Volume 679
Previous day's open int. 2,849

20-YEAR 12% NOTIONAL GILT £50,000 32nds of 100%

	Close	High	Low	Prev
March	104-00	104-17	104-00	104-30
June	103-29	104-24	103-26	104-25
Sept	103-17	103-23	103-17	104-08
Dec	104-14	104-14	104-12	105-07
March	104-15	—	—	—

Volume 1,348
Previous day's open int. 2,329
Basis quote (clean cash price of 15¼% Treasury 1998 less equivalent price of near futures contract) 10—18 (32nds)

STERLING £25,000 $ per £

	Close	High	Low	Prev
June	1.4880	1.4990	1.4856	1.5030
Sept	1.4850	1.4961	1.4961	1.5005
Dec	—	—	—	—

Volume 392
Previous day's open int. 775

DEUTSCHE MARKS DM 125,000 $ per DM

	Close	High	Low	Prev
June	0.4225	0.4227	0.4211	0.4247
Sept	0.4273	0.4227	0.4266	0.4288
Dec	—	—	—	—

Volume 172
Previous day's open int. 229

SWISS FRANCS SwFr 125,000 $ per SwFr

	Close	High	Low	Prev
June	0.4906	0.4907	0.4900	0.4908
Sept	0.4986	0.4986	0.4986	0.5008
Dec	—	—	—	—

Volume 49
Previous day's open int. 299

JAPANESE YEN Y12.5m $ per Y100

	Close	High	Low	Prev
June	0.4194	0.4205	0.4185	0.4227
Sept	0.4223	—	—	0.4259
Dec	—	—	—	—

Volume 123
Previous day's open int. 357

CHICAGO

U.S. TREASURY BONDS (CBT) 8% $100,000 32nds of 100%

	Close	High	Low	Prev
Mar	76.08	76.10	75.28	76.01
June	75.18	75.20	75.06	75.11
Sep	75.01	75.04	74.21	74.26
Dec	74.20	74.20	74.09	74.13
Mar	74.09	74.09	73.31	74.02
Jun	74.00	74.00	73.21	73.25
Sep	73.24	73.24	73.14	73.17
Dec	73.17	73.18	73.07	73.10
Mar	73.11	73.11	73.01	73.04
June	73.06	73.08	72.28	72.31

U.S. TREASURY BILLS (IMM) $1m points of 100%

	Close	High	Low	Prev
March	91.64	91.71	91.60	91.70
June	91.40	91.51	91.33	91.47
Sept	91.19	91.27	91.13	91.27
Dec	90.97	91.09	90.96	91.07
March	90.77	90.87	90.77	90.87
June	90.56	90.66	90.56	90.65
Dec	90.21	90.26	90.20	90.27

CERT. DEPOSIT (IMM) $1m points of 100%

	Close	High	Low	Prev
Dec	90.20	90.30	90.17	90.29
March	91.15	91.20	91.10	91.20
June	90.70	90.78	90.63	90.76
Sept	90.44	90.50	90.36	90.48

THREE-MONTH EURODOLLAR (IMM) $1m points of 100%

	Close	High	Low	Prev.
June	90.11	90.19	90.07	90.16
Sept.	89.89	89.98	89.86	89.76
Feb	—	—	—	—
Mar.	89.52	—	89.52	89.59

STERLING (IMM) $ per £

Jun	1.4835	1.4990	1.4810	1.4990
Sept	1.4815	1.4875	1.4805	1.4975
Dec	1.4800	1.4875	1.4780	1.4955
Mar	1.4780	1.4890	1.4770	1.4925
Jun	—	—	—	—

GNMA (CBT) 8% $100,000 32nds of 100%

Close		High	Low	Prev
March	69-29	70-01	69-22	69-25
June	69-06	69-11	68-30	69-02
Sept	68-10	68-15	68-05	68-07
Dec	67-18	67-24	67-16	67-17
March	67-00	67-06	66-31	66-31
June	66-21	66-24	66-17	66-15
Sept	66-09	66-09	66-05	66-03
Dec	65-26	66-00	65-23	65-24
March	65-17	65-17	65-15	65-16
June	—	—	—	—
Sept	—	—	—	—
Dec	—	—	—	—

WEEKLY CHANGE IN WORLD INTEREST RATES

	Mar. 18	change		Mar. 18	change
LONDON			**NEW YORK**		
Base rates	10½	−½	Prime rates	10½	Unch'd
7 day Interbank	10¾-10⅞	−1/16	Federal funds	8¾-9	+⅝
3 mth Interbank	10½-10 9/16	−3/16	3 mth Treasury Bills	8.41	+0.18
Treasury Bill Tender	10.1643	−0.5830	6 Mth. Treasury Bills	8.46	+0.23
Band 1 Bills	10⅝	−⅛	3 Mth. C D	8.90	+0.20
Band 2 Bills	10½	−½	**FRANKFURT**		
Band 3 Bills	10⅜	−⅝	Lombard	5.00	−1
3 Mth. Treasury Bills	10¼	−⅝	One Mth. Interbank	5.275	−0.475
1 Mth. Bank Bills	10 5/16	−½	Three month	5.325	−0.125
3 Mth. Bank Bills	10¼	−3/8	**PARIS**		
TOKYO			Intervention Rate	12½	Unch'd
One month Bills	6.78125	−0.0625	One Mth. Interbank	12 13/16	−1/16
Three month Bills	6.84375	Unch'd	Three month	12 11/16	−1/16
BRUSSELS			**MILAN**		
One month	15-15¼	+2⅞	One month	18 13/16	Unch'd
Three month	14-14½	+2	Three month	19 1/16	Unch'd
AMSTERDAM			**DUBLIN**		
One month	4 1/16	−½	One month	19½	+5½
Three month	4 5/16	−¼	Three month	18	+2⅞

London—band 1 bills mature in up to 14 days, band 2 bills 15 to 33 days, and band 3 bills to 63 days. Rates quoted represent Bank of England buying or selling rates with the money market. In other centres rates are generally deposit rates in the domestic money market and their respective changes during the week. * Band 4 10¼.

Authorised Units—continued

[illegible]

Insurances—continued

[illegible]

Offshore and Overseas—continued

[illegible]

SECTION IV
FINANCIAL TIMES SURVEY
Monday March 21 1983

Electronics in Europe
INVESTMENT FOR THE FUTURE

Anxieties rise as the pace quickens

By GUY DE JONQUIERES

FOR MOST Western European countries, bruised by recession, rising unemployment and the decline of older manufacturing sectors, the almost boundless perspectives of growth opened up by electronics and information technology hold out one of the brightest hopes of better times ahead.

Indeed, encouraging the development of a vigorous indigenous electronics industry is increasingly regarded not just as a desirable objective, but as a strategic necessity.

If, as is often suggested, the world is on the verge of a new industrial revolution, possession of the skills and resources needed to exploit electronics may be as important in determining the wealth of nations in the late 20th century as the capacity to produce raw steel was in the 19th.

But as Europe ponders the opportunities offered by fast-moving electronics markets, excitement at the prospects is *also tinged with concern.* A recurrent theme of utterances by industry leaders, government authorities and EEC officials in Brussels is the danger of falling behind the U.S. and Japan in a global race to dominate the new technology-based industries of tomorrow.

Both the Americans and the Japanese, of course, also harbour anxieties about the competitive position of their own industries. In Tokyo, there is concern about the national capacity for the kind of fundamental innovation needed to make the leap into a future generation of "intelligent" computers, while Silicon Valley has been jolted by rapid Japanese penetration of key U.S. semiconductor markets.

But in Europe's case, the anxiety often seems to be less about losing an international lead than about the need to catch up with what others are already doing. Viscount Etienne Davignon, the EEC Industry Commissioner, has estimated that as much as three quarters of European spending on research and development may be devoted to catching up rather than pioneering genuine innovation.

Widening gap

He has also pointed with dismay to the steadily widening gap between the EEC's total exports and imports of information technology products, broadly defined. Equally gloomy assessments about the performance of individual European countries in key sectors such as semiconductors and computers are to be heard from national authorities.

But if analyses of Europe's problems often concur, there is far from a consensus about the type of approach needed to solve them.

At the EEC level, the European Commission is urging closer industrial collaboration, initially in the field of research and development, and a more precise alignment of national industrial policies.

Philips, the Dutch group which is Europe's largest electronics manufacturer and one of its most genuinely multinational companies, wants to go further. *It would like to see* collaboration between European companies extending to joint product development and marketing arrangements.

Individual European countries are, however, still a long way from agreeing on common strategies to encourage the development of their electronics industries. At one extreme, France is set on a policy of "reconquering its internal market" and achieving a high degree of national self-sufficiency in key technologies by massive state investments in nationalised companies, such as Thomson, Compagnie Generale d'Electricite and CII-Honeywell Bull.

At the other extreme, Ireland is counting *on* investments by foreign companies to help it build up an electronics industry from scratch. By offering generous grants and tax incentives, it has already succeeded in persuading an impressive number of American and Japanese manufacturers to set up local operations.

West Germany, by contrast, eschews overt government intervention in industry, though its Bundespost (Post Office) exercises strong influence over manufacturers of both telecommunications and data processing equipment, and its Research and Technology Ministry uses its modest support budget to play a limited dirigiste role.

Britain, on the other hand, relies on an eclectic mix of policies. Direct Government intervention through, for example, state support for the Inmos microchip venture, coexists somewhat uneasily with the free market approach which has led to the liberalisation of telecommunications and plans to sell a majority of British Telecom to private investors.

At the same time, Britain has extended an open welcome to foreign investment, thanks to which Scotland today has a greater concentration of semiconductor plants than any other part of Europe. The Government has also been particularly active recently in courting investment from Japan, and most Japanese consumer electronics companies now have UK production facilities, many of them built up from greenfield sites.

> While U.S. and Japanese electronics companies are steadily setting up more manufacturing bases in Europe, as much as three-quarters of European spending on electronic research is probably being used to catch up, rather than pioneer genuine innovation in this fiercely competitive sector

Foreign direct investment in the UK has grown strongly in the past few years, and much of it has been in electronics. According to the Invest in Britain Bureau, net non-oil direct investment doubled from £1.3bn in 1978 to £2.6bn. In 1980, and the UK now has more American and Japanese investment than any other country in the EEC.

Both Britain and Ireland emphasise the important contributions which foreign investment can make in creating jobs, introducing new technology and products, improving the trade balance, training staff and, in a less easily measurable way, instilling fresh attitudes into both management and work forces.

But how realistic is it to rely on extensive foreign investment to provide the foundation of a modern electronics industry?

Advocates of the current French approach would probably argue that such an "open door" policy constitutes an admission of defeat and effectively surrenders a strategic section of the economy to foreign control, thereby diminishing the chances of achieving truly "European" industrial policies.

The validity of such criticism depends to some extent on an assessment of how feasible one considers a "European solution" to be. A number of important high-technology markets are already dominated by companies whose headquarters are outside Europe, notably in the U.S. In computers, for example, there is no European country where an indigenous manufacturer is the leading supplier.

American companies have, of course, had the competitive advantage of economies of scale derived from the size of their home base. But they have also often organised themselves better than their local competitors to take advantage of the Comon Market.

IBM, for example, has arranged its extensive manufacturing operations on this side of the Atlantic so that each of its plants makes a given product for the whole of Europe.

By contrast, Philips has *suffered until recently from a* fragmented production structure which grew up earlier this century when each country was sheltered by tariff walls. This led to many plants making different products which were sold only in the country where they were manufactured.

A similar flaw undermined the policies which several countries adopted in the 1960s and 1970s to try to stimulate the development of indigenous computer industries. Such policies failed partly because they were aimed at producing "national champions" which depended too heavily on too narrow a slice of their own home markets and were unable to match more broadly-based U.S. manufacturers with more efficient large-scale production resources.

Whatever the reasons which lead U.S. and Japanese companies to invest in production facilities in Europe in the first place—and there appear to be a variety of motives involved—it seems increasingly evident that gaining access to the whole EEC market is an important consideration.

This is borne out by a recent survey of more than 600 U.S. electronics companies carried out by Electronics Location File. It found that while Britain was the first choice for a prospective overseas investment, it would lose much of its appeal if it ceased to belong to the Common Market. A quarter of the U.S. companies said that EEC withdrawal would make the UK an unsuitable location, while 46 per cent said it would be less suitable.

Another interesting finding is that France has gained in popularity as a location for prospective U.S. investments over the past year, in spite of undisguised misgivings among many sections of American business about the socialist policies of President Mitterrand's government.

Market access

It is unclear, however, to what extent such investments are motivated by political, as opposed to commercial factors. American companies are undoubtedly concerned that moves such as France's decision to route all Japanese video-recorder imports through one customs post at Poitiers may herald a trend towards the unilateral erection of trade barriers.

Some *see investment* in France primarily as a way of securing access to its market. But they also say that they are reluctant to commit funds to large-scale manufacturing operations there to serve the whole of the European market if French trade barriers are likely to grow.

The recent acquisitions by the French Thomson group of a number of West German consumer electronics manufacturers, culminating in the bid for 75 per cent of Telefunken, as well as the rationalisation of Philips' operations into fewer, larger units, indicates a growing awareness in the European electronics industry of the need to achieve economies of scale if it is to compete effectively against U.S. and Japanese companies.

But such restructuring is unlikely to achieve its objectives unless European companies also look at EEC markets as a whole. Industrial policies which focus heavily on national markets could both inhibit investment from outside and jeopardise any chances of developing a common European strategy in electronics.

CONTENTS

Beyond the telecommunications sector, Europe is failing to meet its own fast-growing electronic needs. The gap is being filled by thrusting U.S. and Japanese companies

Major struggle ahead

WESTERN EUROPE has a healthy appetitie for electronics and information technology products. But it is failing by a wide margin to meet its needs from its own resources.

For this reason, it is often predicted that the region will over the next decade become a prime battleground in a global struggle between American high technology companies, which are already its dominant suppliers in a number of key sectors, and Japanese companies which appear to be set on an aggressively expansionary course.

A critical measure of Europe's position is semiconductors, the *components used in all electronics equipment.*

According to Dataquest, the U.S. market research house, European consumption of semiconductors amounted to $3.2bn last year, out of a world total of $14.7bn. (Europe's share is probably somewhat understated because of the recent strength of the dollar).

Dataquest estimates, however, that only $1.7bn of Europe's consumption was supplied from local sources, and the rest was imported. Moreover, only $1.3bn of local production was by European-owned companies, most of the remainder coming from subsidiaries of U.S. companies.

Though Dataquest expects European-owned production to grow strongly over the next few years, it is likely to be outstripped by expansion of facilities in Europe owned by American and Japanese manufacturers.

It forecasts that by 1993, Western European-owned companies will supply only 34 per cent of a market worth $26.5bn, against 42 per cent last year. Imports are forecast to rise to $9.6bn from $1.5bn over the same period.

Europe has two world-class semiconductor manufacturers in Philips of the Netherlands and Siemens of West Germany, both of which have significant investments in integrated circuit manufacturing in the U.S. On a national basis, France's Thomson group and its recently-acquired Efcis subsidiary also makes "standard" chips in large volumes.

There is a tendency among these European companies, however, to view their semiconductor operations as being more important for their own in-house needs than as a major source of commercial revenues.

"Companies like Siemens are involved in semiconductors for strategic reasons, not business reasons," says Dr Alfred Prommer, former head of Siemens' discrete components' division. That approach clearly reduces their incentive to compete head-on with companies *like Texas Instruments and* Motorola for large shares of the open or "merchant" market.

THE EUROPEAN MARKET

Most other European manufacturers tend to emphasise the production of more specialised chips aimed for particular applications. This is certainly the case with GEC and Plessey of Britain and to a considerable degree of Italy's SGS-Ates.

Britain's Ferranti has carved out *a significant niche* by pioneering the production of so-called uncommitted logic arrays (ULAs), chips which can be tailored to a customer's specifications. Though Ferranti *claims world leadership in this* fast-expanding business, the company's semiconductor sales were still relatively small, totalling $45m last year, against sales of $383m by Philips, Europe's largest producer.

It is too early yet to judge the prospects of Britain's . . . backed Inmos, the only European company set up to develop and make a new line of high-volume "standard" chips from scratch.

Though Inmos' memory chips have won technical acclaim, the company seems certain to need substantial further financing (on top of the £100m already invested in it) if it is to compete successfully with the U.S. and Japanese heavyweights.

Europe's position in semiconductors is mirrored in computers. In spite of the large sums spent by governments to support their national computer industries over the past 15 years, *the European market* is dominated by U.S. suppliers.

According to a study by Logica, a London consultancy, 13 of the top 25 computer manufacturers operating in Europe in 1981 were American.

The largest of these, IBM, had data-processing revenues exceeding those of all its leading European competitors combined. Furthermore, the three biggest European companies—Siemens, ICL of Britain and France's Cii-Honeywell Bull—have all lost money in the business recently.

All three were originally intended to be "national champions" which could stand up to IBM. Their failure to match the U.S. giant stems largely from the fact that they tried to compete with it across too broad a range of products, with inadequate resources and from national markets which were too narrowly based.

Significantly, some of Europe's most striking success stories in computers have been achieved by companies such as Nixdorf of West Germany and Italy's Olivetti, which have sought out niches in the market for smaller data processing systems in *which IBM has been much* less of a threat.

ICL's new strategy, which follows a sweeping reorganisation less than two years ago, is to "surround" IBM installations with its own machines, rather than to try to challenge IBM directly for mastery of the centre ground.

The booming market for personal computers—which is growing several times faster than the market for bigger systems—offers fresh opportunities for European companies. Many of the most successful products so far have been developed by small, young companies, not the established manufacturers.

It remains to be seen whether these upstarts can achieve *sustained growth.*

The examples of Silicon Valley and Boston's Route 128 in the U.S., where small "spin-off" companies have sprung up to develop many innovative products *in recent years, suggest* that Europe may need to pay more attention to the role which such businesses can play in stimulating vigorous growth by the electronics industry.

The one really large electronics market where European countries can be said still to control their own destiny is telecommunications. According to the OECD, most European countries meet two thirds or more of their demand for telecommunications equipment from domestic production, predominantly from locally-owned companies. Moreover, many of them also enjoy a trade surplus in these products, unlike the U.S.

The reason is that European markets are extensively pro*tected by state monopolies* which have placed the vast bulk of orders with favoured national suppliers.

Big influence

The monopoly authorities, or PTTs, are among the largest single purchasers of electronic equipment in most parts of Europe, and their buying power, coupled with their technological and market strength, enables them to wield huge industrial influence.

France has been particularly active in using its PTT as an instrument of industrial policy, to promote the restructuring of its telecommunications industry and the development of new products and systems.

British Telecom, though being stripped of its monopoly, also hankers after such a role.

West Germany's Bundespost exerts much power over its domestic industry, too, though its statutory independence shields it from direct government control.

But powerful forces are building up to challenge the PTTs' monopoly grip. Britain's telecommunications market has been opened to competition (though entry by foreign suppliers remains subject to government control). IBM has identified telecommunications as a top priority sector in Europe over the next decade, and American Telephone and Telegraph, which recently linked up with Philips, is knocking at the door.

Moreover, advances in technology are dramatically changing the institutional environment in which the PTTs operate. The next few years will see a growth of satellite services, which can beam communications signals over wide areas and which will be harder to control than land-based transmission systems.

Finally, the enormous costs of developing new electronic switching systems are likely to strain even the resources of the PTTs and the capacity of their main suppliers. All these pressures seem likely to erode in time the rigid barriers which now segregate national telecommunications markets. But whether the prime beneficiaries are European-owned companies or foreign competitors, remains to be seen.

Guy de Jonquieres

THE EUROPEAN SEMICONDUCTOR MARKET

Semi-conductor consumption by end-user (values in $m)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1993	CAGR* 1983-93
Total semi-conductor	1,853	2,339	3,013	3,686	[illegible]	[illegible]	3,599	4,238	5,075	6,142	7,512	9,259	26,497	22.1
Automotive	56	77	106	138	125	135	158	193	237	295	373	472	1,480	25.1
Computer	389	486	623	755	614	638	723	848	1,014	1,226	1,495	1,838	5,128	21.6
Consumer	482	593	746	888	720	722	791	904	1,048	1,226	1,451	1,726	4,673	19.4
Government/Military	167	207	263	316	247	262	306	367	450	556	694	872	2,628	24
Industrial	425	536	688	836	687	712	803	941	1,119	1,346	1,636	2,005	5,480	21.2
Telecommunications	334	440	592	753	648	698	818	985	1,207	1,493	1,863	2,346	7,108	24.1

* *CAGR, compound annual growth rate.* Source: Dataquest.

THE EUROPEAN INTEGRATED CIRCUIT MARKET

IC consumption by end-use (values in $m)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1993	CAGR* 1983-93
Total integrated circuit	904	1,238	1,747	2,333	1,892	1,988	2,286	2,787	3,452	4,306	5,413	6,842	21,497	25.1
Automotive	8	14	29	46	41	47	55	73	99	133	181	240	1,027	34
Computer	296	380	501	628	488	493	566	678	828	1,017	1,259	1,569	4,645	23.4
Consumer	287	373	500	637	501	499	553	650	775	929	1,122	1,363	4,050	22
Government/Military	30	49	82	119	94	105	124	156	201	262	340	441	1,531	28.6
Industrial	216	295	409	541	435	452	516	629	776	964	1,208	1,522	4,525	24.3
Telecommunications	67	127	226	362	333	392	472	601	773	1,001	1,303	1,707	5,719	28.3

* CAGR, compound annual growth rate. Source: Dataquest.

Quest for closer co-operation in research

Collaboration: now Europe tries again

ACHIEVING closer collaboration between Europe's electronic technology companies, and the creation of an industrial bloc vigorous enough to take on all-comers, is a dream almost as old as the EEC itself. And as the threat grows that Europe may be squeezed in a global battle between powerful U.S. and Japanese manufacturers, the idea is commanding renewed attention.

Last summer the EEC Commission unveiled a project named Esprit for closer co-operation in electronics research and development. The first phase, backed by about £25m in support funds, is a relatively modest scheme for joint work on advanced equipment to make semiconductors.

It is hoped that from next year the programme can be broadened to include closer co-ordination of national R & D policies in fields such as development of the next generation of super-computers, and buttressed by measures to reduce barriers to trade in electronics products in the EEC.

Enthusiasts argue that Esprit's chances are improved by the fact that it enjoys the support of a dozen leading European *electronics manufacturers.* They include Philips of the Netherlands, West Germany's Siemens, GEC, ICL and Plessey of Britain, France's Thomson, CIT Alcatel, and Cii-Honeywell Bull, *and Italy's Olivetti.*

Philips and Siemens also agreed recently to co-operate bilaterally in basic research.

Mr Wisse Dekker, Philips' chairman, hopes that Esprit will *blossom into a full-blown* European industrial policy. He would like to see collaboration extend right up to joint product development and marketing and believes that the EEC *should* waive its competition rules to permit this.

There is certainly much evidence that the weaknesses of Europe's electronics industry have stemmed less from deficiencies in research and technological innovation than from its frequent inability to match the U.S. and Japan in timely product development and effective marketing.

Viscount Etienne Davignon, the EEC Industry Commissioner, estimates that it takes European companies twice as long as Japanese manufacturers to transform research into saleable products.

But Esprit must still overcome numerous hurdles if it is to fulfil even the modest initial goals set for it. Money has yet to be voted for its next stages, and intricate issues have to be resolved such as intellectual property rights and the role of U.S. multinationals, such as IBM.

It remains to be seen, too, whether large companies long accustomed to independence will succeed in practice in pooling resources and blending different management styles.

There have been few examples to date of successful collaboration between European electronics manufacturers. The most ambitious attempt, the short-lived Unidata computer venture which brought together Philips, Siemens and Cii of France in the 1970s is widely remembered as a fiasco. It quickly foundered on differences over market strategy, corporate rivalry and French government interference.

Since then, European companies have tended to look further afield for partners. Philips recently agreed with American Telephone and Telegraph to co-operate in electronic telephone exchanges.

The principle collaborative deals reached by ICL as part of its recovery strategy have been with Japan's Fujitsu, Canada's Mitel and Three *Rivers of the U.S.*

France's Thomson had planned a major link with Continental Telephone of the U.S., but the project collapsed soon after the Mitterrand Government took office.

The U.S., with its huge market and vigorous climate of innovation, has also increasingly attracted investments by European companies. Philips, Siemens, GEC and Plessey have all made sizable acquisitions there, while Italy's Olivetti has made venture capital investments in some 20 smaller American high-technology companies in the past two years.

Within Europe, the history of trans-border acquisitions and investments which have been made for genuinely commercial reasons is relatively sparse and patchy.

Philips, the most truly multinational of Europe's electronics companies, continues to expand in Europe by acquisition, though its investments there recently have been less extensive than in the U.S. And the future of the stake which St Gobain of France purchased in Olivetti three years ago is in doubt now that the French Government has directed the former company to dispose of its interests in electronics.

Both the present French Government and its predecessor have intervened, more or less directly, to encourage mergers involving foreign companies. In the mid-1970s, the Giscard administration threw its weight behind the take-over of French interests belonging to International Telephone and Telegraph of the U.S. and Sweden's L. M. Ericsson as part of a plan to restructure the national telecommunications industry.

Since then, the Mitterrand Government has also nationalised CGCT, a telecommunications company belonging to ITT. *It also supported the bid by* the recently-nationalised Thomson group for a majority of Grundig, West Germany's largest consumer electronics manufacturer, in which Philips has a 24.5 per cent interest.

Earlier this month, after the Grundig bid was blocked by the West German Cartel office, Thomson announced plans to acquire a majority of AEG-Telefunken *instead. The French* company hopes, through this acquisition, to grow to the optimum size to compete internationally with both Philips and the Japanese in consumer electronics.

Of all the obstacles standing in the way of closer industrial collaboration in Europe, perhaps the most intractable is the commitment by a number of governments to policies which aim to achieve purely national objectives by only national means. Thinking in many countries still seems to be coloured by the view that a high degree of independence in high technology is both desirable and feasible.

At the least, such an approach carries the risk that *precious technological* resources will be wasted by needless duplication of effort. At worst, it could lead to debilitating and ultimately self-destructive competition, *accompanied by the erection of* further barriers intended to protect national markets.

The successful Airbus programme has shown that in some areas of high-technology, at least, European countries can rise above such rivalry, to their mutual advantage. There have recently been some encouraging instances of co-operation and harmonisation in the less glamorous but increasingly important field of technical standards for new information technology products.

Among the latter are the agreements between European telecommunications authorities on common standards for teletex terminals, which are due to *replace telex machines, and* for videotex systems, low-cost computerised information networks which can carry services like home banking and electronic shopping. The agreement on videotex has effectively brought a truce in a bitter conflict between Britain and France, each of which was trying to establish its system as a standard.

There seem to be two important lessons to be drawn from these examples. The first is that all the parties involved realised that they stood to gain much more than they lost through collaboration. Significantly, perhaps, none of the agreements was reached within the institutional framework of the EEC, whose decision-making machinery is both cumbersome and often tends to encourage governments to battle for the last ounce of political advantage.

High costs

The second is the recognition that individual European countries can no longer afford the massive investments required for high technology projects, especially if there is no certainty that the products which emerge from them can be sold in volume outside their home markets.

Few telecommunications manufacturers have the resources to develop a new generation of electronic digital exchanges on their own and the huge costs and diverse technological skills needed to develop "intelligent" computers in the 1990s will almost certainly require joint efforts involving both governments and companies.

The survival of many of Europe's electronics manufacturers may hinge on how well they adapt to these challenges. In the final analysis, perhaps the best hope for closer collaboration is that inexorable economic pressures and commercial self-interest will lead to industrial rapprochements for which the political will has so far been lacking.

Guy de Jonquieres

EUROPEAN SEMICONDUCTOR REVENUES

Estimated 1982 versus 1981 revenues of leading suppliers, values in $m

Company	1981 $	1982 $	Annual growth (decline) per cent %
Philips	392	383	(2.3)
Texas Instruments	345	350	1.5
Siemens	241	249	3.8
Motorola	239	252	3.3
National Semiconductor	125	149	19.2
Intel	138	146	5.8
Thomson*	144	140	(2.8)
ITT	131	135	3.1
Telefunken Elektronik†	127	132	3.9
SGS-Ates	118	118	0.0
Fairchild	112	115	2.7
Hitachi	71	81	14.1
NEC	47	69	46.8
RCA	56	58	3.6
AMD	50	56	12.0
General Instrument	52	54	3.8
Mostek	50	52	4.0
Ferranti	26	45	73.1
Signetics	60	38	(36.7)
Plessey	36	37	2.8
MEDL	30	32	6.7
Hewlett-Packard	30	32	6.7

* Thomson-CSF and Thomson-EFCIS. † Formerly AEG-Telefunken. Source: Dataquest, 1983.

ELECTRONICS IN EUROPE III

The factors which influence U.S. and Japanese companies moving into Europe are very different

New criteria for investment

AMERICAN and Japanese electronics companies differ considerably in the criteria that they apply in deciding where to locate a new manufacturing facility in Europe.

These criteria have changed since the immediate post-war years when there was a burst of manufacturing investment in Europe by the emerging U.S. data-processing multinationals.

The primary impetus for these investments was the lure of cutting down on transportation costs and establishing a firm base in the market.

In the 1960s, developments in printed circuit board technology made distribution costs less important than labour costs. This consideration alone drove U.S. companies to manufacture in the Far East and, to some extent, in Mexico and Puerto Rico.

Japanese multinationals have been late arrivals on the international investment scene. In the 1960s, Japanese investment overseas was confined to the Far East, exploiting the same labour cost advantage.

Strong reaction

In the 1970s, Japanese companies have, somewhat reluctantly, become major investors in Europe. The proliferation of Japanese imports brought a strong reaction from European companies, which led to threats of trade protectionism, and this encouraged Japanese companies to set up manufacturing plants in Europe even though there appeared to be no intrinsic cost advantage.

Aware of the political sensitivity to their activities, many Japanese companies established joint ventures with European producers. Some of these joint ventures have then been discontinued in favour of wholly owned Japanese facilities.

● **U.S. companies' criteria:**

In the past few years, U.S. companies have been remarkably consistent in their criteria for evaluating an overseas production investment location.

More than 50 major greenfield investments have been made in Europe by U.S. electronics companies between 1978 and 1981. About a third of these investments have been in data processing, a further third is divided equally between industrial electronics equipment and support components, *that is all* electronics components other than semiconductors and integrated circuits; the remaining facilities are broadly split into office equipment, communications, semiconductors, integrated circuits and consumer products. Today, all these investments are providing employment for about 20,000 people.

Although these companies apply similar criteria to selecting locations, there have been several clearly identifiable changes in their relative importance since 1978.

The cost and nature of labour, host government attitudes and financial incentives are some of the criteria. For example, labour performance measured by absenteeism, labour turnover and, if possible, productivity are taken into account when comparing likely labour costs. Even in 1978, availability of specialist labour was considered more important than untrained labour. However, in both categories assessments are made of the capability and flexibility of the workforce as an indication of adaptability to technological change.

Host government attitudes are looked at in terms of interference in the affairs of companies, ownership restrictions and import/export regulations on capital and earnings, and on products and raw materials.

All companies consider financial incentives to be important. However, less mature companies tend to value them more; more mature companies tend to regard them as a trade-off factor. In other words, more-mature companies think further ahead than newer companies.

The greatest weight was given to political/economic stability. In 1978, perceived weaknesses in its political and economic environment ruled out further consideration of one particular country.

The degree of labour organisation was also considered to be important by U.S. companies in locating new production facilities. Although unions are as prevalent in the United States in medium and heavy industry as they are in *Europe*, U.S. executives believe that successful companies in electronics have personnel policies and practices that reduce the demand for unionisation. The judgment of U.S. executives is that the majority of *successful* U.S. electronics companies are not unionised to any great degree.

One of the final considerations, as part of the infrastructure evaluation, would be the adequacy of service industries.

The least important criterion was the language of the host country.

In summary, if U.S. companies could see no cost advantage in manufacturing in Europe, they turned their attention to expanding or finding alternative locations in the U.S.

How had the criteria changed by 1981? Overall, they remain the same, but the relative importance of the availability of specialist labour and the attitude of the host government and its incentives have increased.

For companies evaluating a first European location, English language has become a more important factor, in many cases limiting options to the UK and Ireland.

Stability

Political/economic stability is slightly less of a concern, probably due to U.S. companies' recent experience of domestic inflation.

Availability of untrained labour is also less important probably because of the increasing levels of unemployment in Europe.

Although not quoted by enough companies to constitute a significant trend, host government "welcome" was highlighted as an important stimulus to investment by some companies—*in particular*, being visited by senior public figures from the host country is seen as a positive indication of "welcome."

How do these criteria change when U.S. electronics companies are evaluating a second or subsequent production location? Essentially, the same weighting of criteria applies, with the difference that unionisation is not so much of a pre-occupation due to satisfactory experiences of unionised environments.

Companies with experience in European manufacturing have not rated the English language criterion any more highly than in 1978.

● **Japanese companies criteria:**

There have been 10 major greenfield Japanese electronics investments in Europe between 1978 and 1981, six of which are in consumer products, three in ICs and one in microsystems. All these Japanese investments have resulted in over 2,000 new jobs today.

Japanese companies look very differently at the criteria for selecting new manufacturing locations.

In 1978, Japanese companies were less afraid than U.S. companies of managing within an uncertain political and economic environment. U.S. companies emphasised labour cost; Japanese companies emphasised performance.

Japanese companies were more confident and willing to work with trade unions. *Japanese and U.S. companies* gave similar weight to local availability of specialist skills, with slightly less concern for untrained labour.

Japanese companies emphasised their need for a welcome from the host government and predated U.S. companies in this. Japanese companies were more concerned than U.S. companies with finding a sound infrastructure, particularly of supply, and they placed greater emphasis on *choosing* an English-speaking location.

Some changes have occurred since 1978 in Japanese attitudes to investing in Europe.

Poor productivity has been a problem for some Japanese companies in Europe and so productivity - related criteria have become more important when selecting new locations

A second area where trouble has arisen is in finding local sources of quality components.

There is a stronger preference today for working in English since it is the second language of Japanese management.

Another change is that where Japanese companies see threats of trade protectionism, they begin to attach more importance to "attitude of host government."

● **Criteria in the 1980s:**

There are two significant movements in the electronics industry which will shape the pattern of U.S. and Japanese investments in Europe during the next few years.

Firstly, R & D investment is becoming even more important in electronics. The days are gone of Japanese companies only entering mature and semi-mature markets and then developing them as "fast followers."

Japan is developing a strong position in the state-of-the-art technology products, especially VLSI devices and fifth generation computers.

In the U.S., companies are feeling the pressure of obtaining and keeping key research and product development works, particularly on the West Coast.

Secondly, significant market niches are open to "fleet of foot" entrepreneurs backed by the ever increasing availability of venture capital in the U.S. and in Europe. New companies are establishing strong positions in microsystems software, semi-custom IC design and artificial intelligence.

● **Certain trends emerge clearly:**

Newer U.S. companies in the electronics industry are definitely investing overseas much earlier in their history than did the older-established companies. In fact, the tendency is to ask "How soon can we set up European production?" as opposed to "How long can we delay it?"

U.S. electronics investment in Europe will increase rapidly once the recession ends and at a greater rate than before. There will be even more decentralisation of product development and, possibly, of research activities. This should be encouraged by host governments since electronics will be the major source of economic regeneration.

The manufacturing - only satellite is highly vulnerable to corporate decisions made outside the host country.

In addition to cementing relationships between the company and the host economy, such incorporation also provides a breeding ground for entrepreneurs to start new businesses — a nucleus for a healthy indigenous industry.

The only motivations behind Japanese manufacturing investment in Europe have been, and will continue to be, EEC or member-country actual or potential restrictions on imports.

This is not advocating trade protectionism, just a realistic view of why Japanese electronics companies choose to manufacture in Europe.

● *The writer is a principal with the international management consultants, Booz, Allen and Hamilton. Mr Inger specialises in the electronics industry. Some of the data in the above article is based on surveys undertaken in 1978 and 1981 by Booz, Allen and Hamilton for the Scottish Development Agency and used with permission of the SDA.*

SELECTING A LOCATION

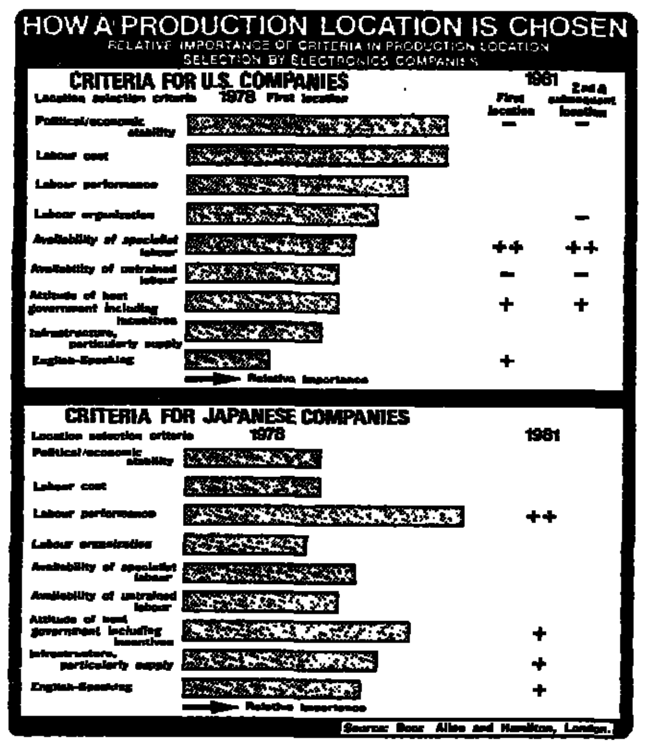
BY ROD INGER

PREFERED LOCATIONS

This table lists countries in order of locational preference by the U.S. electronics industry. Column one shows the latest position (with last year's position in parentheses), followed by the country and preference vote, ie, the number of relocating electronics companies (total, 263) expressing preference for one or more countries.

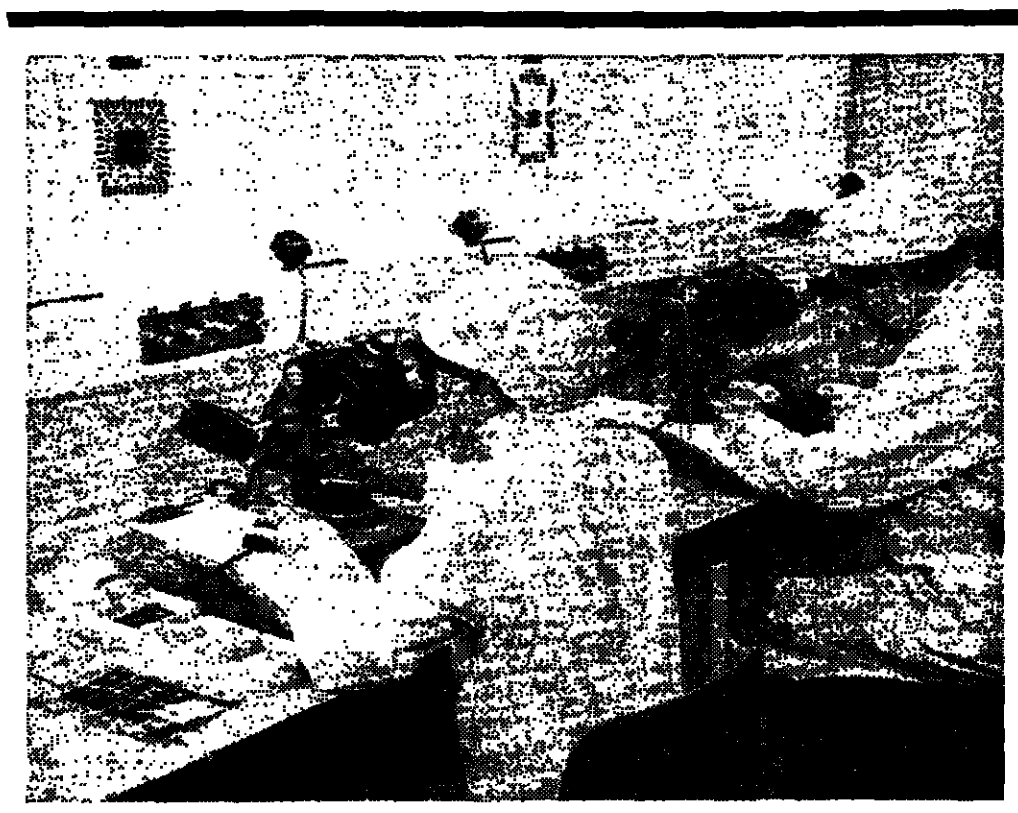
1	(1)	United Kingdom	71
2	(2)	West Germany	51
3	(3)	Ireland	44
4	(7)	France	31
5	(5)	Mexico	28
6	(4)	Canada	25
7	(6)	Taiwan	21
8	(12)	Netherlands	19
9	(9)	Italy	18
10	(8)	Japan	17
11	(11)	Spain	15
12	(10)	Singapore	14
13	(14)	Philippines	13
14	(16)	Belgium	12
15	(15)	Australia	11
16	(28)	Barbados	11
17	(31)	Switzerland	10
18	(13)	Austria	9
19	(34)	India	9
20	(33)	Hong Kong	8
21	(35)	Jamaica	8
22	(17)	Malaysia	8
23	(21)	Sweden	7
24	(29)	Brazil	6
25	—	Costa Rica	6
26	(30)	Portugal	6
27	(36)	South Korea	6
28	(19)	Morocco	5
29	(26)	Sri Lanka	5
30	(18)	Egypt	4
31	(23)	Israel	4
32	(20)	New Zealand	4
33	(24)	Norway	4
34	(32)	Argentina	3
35	(38)	Denmark	3
36	(42)	Luxembourg	3
37	—	St Vincent	3
38	(27)	Tunisia	3
39	(41)	Greece	2
40	(22)	Indonesia	2
41	—	Panama	2
42	(25)	South Africa	2
43	(45)	St Lucia	2
44	—	Venezuela	2
45	(37)	Chile	1
46	—	China	1
47	(40)	Cyprus	1
48	—	Finland	1
49	(43)	Nigeria	1
50	(50)	Turkey	1

Source: Electronics Location File, 1983



More than 50 major greenfield investments have been made in Europe by U.S. electronics companies between 1978 and 1981. The tendency among U.S. companies now is to ask "How soon can we set up European production?" as opposed to "*How long* can we delay it?"

ELECTRONICS IN EUROPE IV



The microcircuit design and processing facility, established by ICL at its computer development centre at West Gorton, Manchester. The main purpose of this facility is to speed-up the development of new large-scale integrated (LSI) circuits for use in future ICL computers. This picture was taken in the assembly and packaging area.

After testing, selected chips are assembled in multi-pin packages and wires of 25 micron diameter are used to link the microscopic terminations of the integrated circuit to the package pins.

SEMICONDUCTOR PRODUCTION AND SUPPLY

European semiconductor supply model ($m)

	1981	1982	1983	1984	1985	1993
Worldwide construction/production	*14,219*	*14,747*	*17,545*	*21,177*	*25,920*	*160,671*
European consumption	3,041	3,167	3,599	4,238	5,075	26,497
Imports	1,534	1,502	1,682	1,934	2,285	9,627
Domestic supply	1,507	1,665	1,917	2,304	2,790	16,870
European production	1,700	1,873	2,150	2,574	3,100	18,500
Exports	193	208	233	270	310	1,630
Domestic supply	1,507	1,665	1,917	2,304	2,790	16,870
European-owned production	*1,216*	*1,330*	*1,480*	*1,736*	*2,020*	*10,500*
Exports	170	183	203	234	266	1,380
Domestic supply	1,046	1,147	1,277	1,502	1,754	9,120
U.S.-owned production in Western Europe	464	507	605	718	870	5,000
Exports	23	25	30	36	44	250
Domestic supply	441	482	575	682	826	4,750
Japanese-owned production in Western Europe	20	36	65	120	210	3,000
Exports	0	0	0	0	0	0
Domestic supply	20	36	65	120	210	3,000

Source: Dataquest.

Why Britain is attracting more U.S. and Japanese manufacturers

Surge in foreign investment

Britain

UNDER SUCCESSIVE governments, Britain's policy on virtually all foreign investment in the UK has been to welcome it with open arms. As the Invest in Britain Bureau said in a report on its first five years, published earlier this month: "Foreign-owned companies are vital to the economic life of Britain. They bring new technology, new management styles and attitudes, the injection of capital investment, the generation of exports and new jobs."

Inevitably, the largest proportion of overseas investment in Britain has been by companies setting up or expanding in the growth electronics industries. The U.S. is by far the largest overseas investor in the UK and a significant proportion of companies are in electronics.

Earlier this month Commodore, one of the largest U.S. manufacturers of personal computers, announced it was spending £20m on a new factory in the steel closure town of Corby to establish a European manufacturing and distribution centre. IBM, the world's largest computer manufacturer, which employs more than 15,000 people in the UK, has recently announced plans to build its Personal Computer at Greenock in Scotland.

Also earlier this year, Unimation announced it would expand its robotics factory in Telford, and Digital Equipment (DEC) announced the establishment of a software centre in the UK.

Nearly half of all Japanese investment in the European Community has been made in Britain. Although Japanese manufacturers may invest partly to avoid tariff barriers and to get closer to the market, one of the greatest reasons is to defuse growing protectionism in Europe.

After cars, consumer electronics products have been one of the most persistent problems in trade relations between Japan and Europe. A number of Japanese companies now make colour television sets in Europe, mainly in the UK. The first to make colour sets in the UK was Sony at Bridgend in Wales. It has significantly expanded its plant there where it now also makes television tubes.

Other companies making colour sets in the UK are Matsushita (National Panasonic), Toshiba, Hitachi in a joint venture with GEC, Sanyo and Mitsubishi.

Although the electronics industries have not been specifically singled out for favourable treatment in Britain, there are several reasons why they may find added incentives available in this country.

Certainly, industry ministers have enthusiastically welcomed recent investments in *high technology areas*. These include the Unimation and DEC investments as well as the establishment of a video cassette tape plant by Hitachi-Maxell in Telford and a promise to make video recorders in the UK by Sanyo and Mitsubishi.

Also within the UK, a number of agencies specifically try to encourage high technology companies to invest in their areas. The most notable success in this field is the Scottish Development Agency.

There are now more than 40,000 people employed in the electronics industry in Scotland in over 200 companies. The Central Lowlands between Edinburgh and Glasgow has the greatest concentration of semiconductor manufacture in Western Europe and has been dubbed "Silicon Glen."

Expansion

Motorola, the U.S. electronics company, is spending £60m to expand its existing semiconductor plant in East Kilbride. Nippon Electric Company (NEC) is spending £40m on a factory to make microchips in Livingston which will be the largest Japanese semiconductor plant in Western Europe. (Other Japanese semiconductor plants are Fujitsu and NEC in the Irish Republic, Hitachi in West Germany where Toshiba is also building a plant.)

Other U.S. companies making microchips in Scotland include General Instrument and Hughes at Glenrothes and National Semiconductor at Greenock. Wang, the U.S. computer and word processing company, is spending £38m on a factory in the Stirling Science Park on the campus of Stirling University to build visual display units and a range of office automation equipment.

The SDA has been particularly keen to establish a vertically integrated electronics industry from the component industry through a range of products to software development and research and development.

Scotland is still a very long way from matching California's Silicon Valley, where new companies are created as they spin off from existing *organisations*. But Scotland has recently spawned a successful entrepreneurial new company, Rodime, *which was set up by a group of* senior managers from Burroughs, the U.S. computer company. Rodime makes mini Winchester disc drives which give personal computers sophisticated bulk storage of data memory.

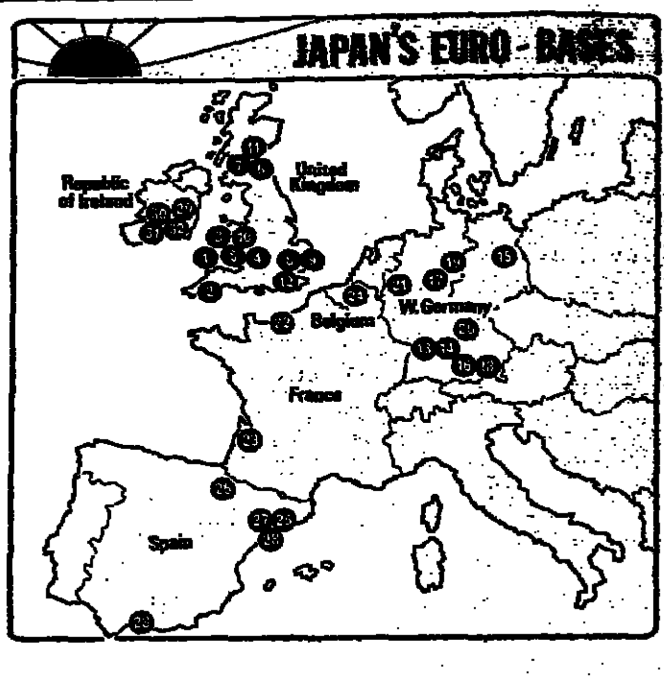
In addition to the individual efforts of the different development agencies, there is a raft of government support programmes for high technology industry. Although the prime purpose of many of these schemes is to encourage the development of the indigenous industry, overseas companies are also eligible if they manufacture in the UK. They have been used as an additional lever to encourage investment in Britain.

For instance, Unimation's expansion at Telford was helped by a grant under the Department of Industry's robotics scheme. Corning Glass of the U.S., which has a joint venture to make optical fibre in Wales with the British company BICC, has also been a beneficiary of the DoI's fibre optics support scheme.

Under the government's broad "Support for Innovation" package there is a range of grants for research and development which can contribute up to one-third of the cost. In addition, there are a number of specific schemes to encourage areas of high technology including computer-aided design and manufacture (CAD-CAM), flexible manufacturing systems, fibre optics, robotics and software products.

Foreign companies are also substantial beneficiaries of selective financial assistance which is available for projects creating employment in areas of expansion, or safeguarding existing employment through modernisation. According to the recently-published report by the IBB, foreign companies received £50m under Section 7 of the Industrial Development Act (formerly the Industry Act). The projects involved total investment of more than £530m and are expected to create 10,240 jobs and safeguard nearly 8,800 others.

Jason Crisp



ELECTRONICS MANUFACTURING CENTRES

ONE HALF of all Japanese investment in manufacturing in Europe since the early 1970s has come to the UK, according to Industry Department's Invest in Britain Bureau. Most of the recent announcements of planned Japanese investment in Europe have been for the assembly and manufacture of video recorders and video tape.

Map key: the numbers correspond to bases of Japanese electronics manufacture:

● **United Kingdom:**
1. Sony: colour TV sets and tubes.
2. Toshiba: colour TV sets.
3. Hitachi (with GEC): colour TV sets.
4. Aiwa: hi-fi equipment.
5. Matsushita: colour TV sets.
6. Mitsubishi: colour TV sets.
7. Mitsubishi: video recorders from late 1983.
8. Sanyo: colour TV sets.
9. Sanyo: video recorders from late 1983.
10. Hitachi-Maxell: video tape from late 1983.
11. NEC: semi-conductors.
12. J2T (JVC, Thorn EMI and AEG-Telefunken): video recorders.

● **West Germany:**
13. Sony: colour TV sets.
14. Sony: video recorders.
15. J2T (JVC, Thorn EMI and AEG - Telefunken): video recorders (1984).
16. Hitachi: video recorders.
17. Matsushita (with Bosch): video recorders (1984).
18. Hitachi: semiconductors.
19. Toshiba: semiconductors (1984).
20. Murata-Erie: capacitors.
21. JVC: video-tape.

● **France:**
22. Akai: hi-fi video recorders.
23. Sony: audio cassette tape.

● **Belgium:**
24. Pioneer: car radios and hi-fi equipment.

● **Spain:**
25. Sanyo (with Aznarez): colour TV sets.
26. Sanyo (with Aznarez): colour TV sets.
27. National Panasonic: domestic electrical equipment.
28. Fujitsu: computer equipment (two plants).

● **Republic of Ireland**
29. NEC: semiconductors.
30. Sord: microcomputers.
31. Logic: microcomputers.
32. Fujitsu: semiconductors.

Sources: Invest in Britain Bureau; Mackintosh Consultants; and the Electronic Industries' Association of Japan.

Inmos seeks a significant slice of the world microchip market

Project reaches a key stage

Wales

LAST MONTH, Inmos's futuristic-looking £25m UK production plant was officially opened at Newport, Gwent. It marks an important stage not only in the Anglo-American venture's bid to capture a significant slice of the world market for standard microchips, but also in the Welsh drive to become recognised as an attractive location for European electronics investment.

Wales's connections with the electronics industry are not new. The AB Electronics group was *manufacturing electronic* components in the Welsh industrial valleys more than 20 years ago. Siliconix, a Santa Clara-based manufacturer of field effect transistors and integrated circuits opted to open its European manufacturing subsidiary at *Swansea as long ago* as 1969.

Today, the Swansea facility is responsible for approaching half the company's sales worldwide and a significant share of its research and development.

In the 1970s, two major Japanese consumer electronics producers, Sony and Matsushita's National Panasonic subsidiary, both established their first *European television plants* in South Wales—at Bridgend and Cardiff, respectively.

Both have been expanded substantially since the initial investment. They were subsequently joined by Hitachi, which established a joint venture with GEC to take over the latter's Hirwaun television plant, and Aiwa which opted for Gwent to manufacture its range of miniaturised audio equipment.

The Control Data Corporation of Minneapolis set up what is now its European headquarters for magnetic media production at Brynmawr in 1973.

Even so, Wales has had an *uphill battle to persuade* the electronics industry that it is an attractive investment location in its own right. The traditional, though outdated image of an area dominated by coal, steel and heavy engineering dies hard. There is an understandable inclination among internationally-mobile projects examining the UK to stick as close as practicable to London and Heathrow airport.

The fact that a comprehensive package of financial aid from British Government and EEC sources is available for companies establishing themselves in Wales tends, in some cases, to arouse suspicion rather than encourage closer examination.

Inmos itself is a case in point. The company chose Bristol to set up its UK research and development headquarters and originally was very keen to also build its first British production unit on the outskirts of the city.

Newport, just across the Severn bridge, was eventually selected as a result of British Government insistence on its being located in a Development Area. But Inmos have subsequently expressed themselves delighted with the outcome.

According to Dr Dick Petritz, Inmos's managing director, the quality of staff recruited is as good as the best at the company's U.S. facility at Colorado Springs.

He has confidently predicted that the South Wales section of the M4 will become a prime location of microelectronics ventures.

New complex

Certainly, two other recent major projects required no such arm-twisting. Ferranti has just put the finishing touches to a new £5m complex at Cwmbran, Gwent, for the design, development and manufacture of air traffic and military computer systems. It opted for South Wales because of the difficulties of recruitment in the Berkshire "software belt" around Heathrow and there are plans for further expansion throughout the 1980s.

The rapidly-expanding Mitel Corporation is well advanced with its major new £32.5m European headquarters at Caldicot, Gwent. The 300,000 sq ft facility will produce the complete range of Mitel PABX systems, both for the British telecommunications industry and Mitel distributors throughout Europe, the Middle East and Africa, as well as act as the company's European administrative and research and development centre.

Among the well-established *companies* AB *Electronic* Products has just won a multimillion pound contract to supply advanced electronic *control systems for the next gen*eration of Jaguar motor cars. This represents a major breakthrough in the company's move *towards developing specialist* instrumentation and electronic systems and away from simple components.

Restraint

AB also purchased out of *receivership last year another* South Wales hardware manufacturer, Cleartone Electronics, one of the suppliers of the BBC's *Acorn microcomputer*.

Siliconix, on the other hand, is being restrained by the recession from implementing long-*standing plans* to move into the manufacture of silicon wafers on a greenfield Welsh site.

Another interesting homegrown Welsh development has been the launching of a personal computer by the Mettoy group's Swansea plant. The Dragon 32 is claimed to be the first home computer selling under £200 to incorporate a professional keyboard and many other features available only as extras on other machines.

Demand since it was launched last August, has been so strong that the new subsidiary company, Dragon Data, recently moved into new 50,000 sq ft premises to *more than double* output.

Talks are also underway to establish a joint manufacturing venture in the U.S.

Wales is determined to build on the successes. The Welsh Development Agency recently *announced plans* for a major new high technology park and is pressing ahead with preparation of infrastructure and services. *It is also adapting its* advance factory designs so that they can be easily adapted for electronics and high technology use.

More attention is being focused on the interface between Wales's university colleges and higher education institutions and high technology industries, including electronics. Education authorities are pumping more resources into providing the skills required by the electronics industry, and the arrangements for attracting inward investment are in the process of being beefed up.

Given a recovery from the recession and an acceleration in international investment in the *electronics industry*, *Wales* expects to be far better placed to win a significant slice of the action.

Robin Reeves

A proliferation of electronic contracting and service companies move in behind the established manufacturers

'Silicon Glen' is here to stay

Scotland

INVESTMENT in electronics in Scotland over the past five years is estimated at about £500m and today the region shows particular strengths in information systems, defence electronics, industrial and commercial applications, telecommunications, semi-conductors and components.

Scotland has over 200 companies in the electronics field, employing over 40,000 people. The real sign that "Silicon Glen," as it has been dubbed, is here to stay is the proliferation of an electronics subculture—companies which have been set up to handle sub-contracting and to service the needs of the established companies.

The industry has a backbone of multi-nationals. IBM, Burroughs, Honeywell, NCR and Hewlett Packard arrived during the '50s and '60s and have since increased their presence. IBM recently launched its personal computer for the European market from Greenock, bringing its investment in Scotland so far to something around £108m.

The big companies were followed by second-generation companies, such as the semi-conductor manufacturer. Motorola and General Instrument have been among the major investors. An estimated £130m has been spent in the past two years to make Scotland the starting-point for more than half the semi-conductor output of the UK.

The investment that has taken place has, to a large extent, been steered. Last year the Scottish Development Agency, the industrial promotion body for the country, evolved an electronics strategy to foster locally-based research and development, sub-contracting activity and indigenous industries.

The agency's strategy was evolved from a detailed study of the outlook for electronics by consultants Booz, Allen and Hamilton, and has three main aims: to intensify the region's technological base, to encourage Scottish-owned companies and to increase employment.

To implement this, the SDA has tried to lay the infrastructural groundwork in the form of accommodation, advice and financial aid packages. The aim is to lead out electronic growth from seminal ideas in small plants through to commercial realisation in larger factories.

The science park concept, linked to the universities, plays a key role here. The interaction between university and tenant company is not just left to happen by the very proximity of university buildings to industrial sites, but rather through the active encouragement of the flow of ideas between academic and entrepreneur.

Two science parks are already under way in Scotland. The first, the West of Scotland Science Park is at Garscube in northwest Glasgow, and combines the resources of the universities of Glasgow and Strathclyde. The second is planned for Aberdeen.

Targets

Outline plan for a third campus science park at Stirling University received a huge boost recently when the Wang Corporation announced it wanted to build a £38m factory on the site to manufacture automated office equipment.

The science park strategy is being taken a stage further at Dundee where a technology park is being planned. Here it is hoped that projects reaching the stage of commercialisation can find both the accommodation and workforce to start up production.

The agency's own special unit promoting electronics estimates that over £320m has been spent on expansions and new starts since 1980, and much of the financing for these various new projects has in the case of the multi-nationals been in-house.

According to one analyst's estimate, as much as £475m of the £500m put into the industry over the past five years has been investment by the multi-nationals in new development.

The Nippon Electric Company (NEC) for example, moved late last year into the first part of their £40m integrated circuit plant at Livingston new town, west of Edinburgh. A leading U.S. supplier of precision microelectronic devices Burr-Brown of Tucson, Arizona, is also setting up in the town, which already houses Burroughs, Ferranti, and Sperry-Univac.

The NEC plant is the first fully-integrated, Japanese-owned facility in Europe and when it was launched, the company said that Scotland offered the best infrastructure to support wafer production. Similarly pleased with Scotland has been Motorola which will start production late next year at a £60m new wafer plant at East Kilbride.

At the same time, smaller companies have also been active. Applied Computer Techniques of Birmingham has recently announced that it is to move for the first time into the manufacture of personal computers with a plant in Scotland.

ACT is one of Britain's more successful computer companies with a very high growth rate. It more than doubled turnover, according to provisional figures for the present year, to £20m from £8.4m the previous year.

The company is setting up its personal computer plant in another New Town, Glenrothes, in Fife, which has one of the greatest concentrations of electronics in Scotland, including General Instrument, Beckman Instruments, Hughes Microelectronics and GEC.

ACT are funding the project—worth £10m over two years—with a £6.05m rights issue for shareholders backed by Government grants.

Government assistance has, in fact, played a significant role in encouraging investment and can, in some cases, cover up to 40 per cent of the capital costs with packages combining regional development grants, selective assistance, training grants and other assistance.

New plant

The Scottish Development Agency is also the region's main industrial landlord and much of its electronics strategy consists of producing the right-sized and located units to house new and expanding companies.

While the SDA has been active for some time, the private sector has, until recently, been reluctant to commit funds to back electronic ventures in Scotland. Signs of a change in attitude by the providers of venture capital have, however, begun to emerge.

ICFC now has over 700 investments in Scotland with about five to 10 per cent in the electronics field. The company, by appointing outside managers to sit on the board of companies which have received funds, has attempted to offer managerial guidance when it may be needed during the struggling early days of a product.

Technical Development Capital, part of ICFC, was one of the original investors in one of Scotland's most successful start-up electronics firms, Rodime in Glenrothes.

The company, backed by nearly £1m from TDC in 1980 produces computer disc drives. The company has since grown quickly and was floated on the U.S. market last year.

Other groups active in high technology investments in Scotland include Murray Technology of Glasgow.

Mark Meredith

Jobs involved in foreign investments in manufacturing in the UK

	1979	1980	1981	1982	Total
Belgium	185	—	110	23	318
Canada	423	2,006	1,056	—	3,485
Denmark	349	319	73	278	1,019
Finland	222	35	28	—	285
France	391	1,044	425	—	1,860
West Germany	854	1,099	778	254	2,985
Japan	585	1,264	970	30	2,849
Netherlands	1,044	741	130	919	2,834
Norway	111	51	234	40	436
Sweden	552	867	150	126	1,695
Switzerland	326	1,122	589	245	2,282
U.S.	8,546	9,183	11,333	8,283	37,345
Rest of the world	722	931	541	335	2,529
Total	14,310	18,662	16,417	10,533	59,922

Source: Invest in Britain Bureau.

Scotland has more than 200 companies in the electronics field, employing over 40,000 people. Above: An assembly area at Rodime at Glenrothes, Fife, which has one of the greatest concentrations of electronics companies in Scotland.

National Semiconductor is one of a number of U.S. silicone chip manufacturers which has set up plants in Scotland.

World markets for information processing products by region, 1982-1992
(billions of 1982 dollars; totals rounded)

	Computers	Terminals	Peripherals	Software	Total
1982					
United States	17.6	7.6	15.3	4.1	44.6
Western Europe	10.9	2.8	9.9	1.6	25.2
Japan	4.5	2.0	3.2	0.7	10.4
Rest of free world	2.1	0.6	1.9	0.3	4.9
Total	35.1	13.0	30.3	6.7	85.1
1987					
United States	28-31	9-11	22-25	11-13	68-78
Western Europe	17-19	3-5	14-17	6-8	42-48
Japan	7-9	3-5	5-7	1.5-2.5	18-22
Rest of free world	3.5-4.5	1-1.4	3-4	1-1.5	9-11
Total	56-62	17-22	45-52	20-25	140-155
1992					
United States	37-43	13-16	31-36	24-28	110-120
Western Europe	22-25	4-7	20-24	15-18	64-72
Japan	10-13	4-6	10-12	4-6	29-35
Rest of free world	4-6	1.4-2	4-5	2-3	12-15
Total	75-85	23-30	68-75	46-54	220-240

Estimated growth of information processing product markets by region, 1982-1992
(per cent per year; based on constant dollars)

	Computers	Terminals	Peripherals	Software	Total
United States					
1987-92	10-12	3-8	8-10	22-26	10-13
1987-92	5-8	5-10	6-9	15-18	9-10
Western Europe					
1982-87	9-12	3-8	7-11	30-38	11-14
1987-92	4-8	3-8	5-9	16-21	7-9
Japan					
1982-87	9-15	10-20	9-17	16-29	12-16
1987-92	5-10	3-8	11-15	15-25	8-12
Rest of free world					
1982-87	11-16	11-18	10-16	27-38	13-18
1987-92	4-8	3-11	3-7	10-19	4-8
Total					
1982-87	10-12	6-11	8-11	24-30	10-13
1987-92	5-8	3-9	7-9	15-19	8-10

Source: Arthur D. Little, Inc., estimates.

Considerable controversy has arisen over the long-term future of the industry in Ireland

Rapid expansion after a late start

Ireland

THE ELECTRONICS industry in Ireland is the pride and joy of the country's Industrial Development Authority (IDA). Its rapid growth has boosted jobs and exports during a period when both were in decline in many other sectors.

Even so, the nature and future of the industry have recently become a subject of considerable controversy.

On the face of it, the industry story has been one of the main successes of the 1970s. Numbers employed grew from 5,000 in 1972, to 17,000 10 years later.

The growth in exports was even more impressive, increasing 30-fold to almost I£1bn last year, when they accounted for about 17 per cent of all Irish exports. Ireland has been struggling with severe balance-of-payments deficits in recent years, and the contribution of the high-value electronics can hardly be over-estimated.

This remarkable expansion was the result of a highly-organised campaign by IDA. Ireland missed out on the computer investment of the 1960s, when multi-nationals such as IBM, Burroughs and Honeywell expanded in Europe.

Even with this recent growth, Ireland has a lower proportion of foreign electronics companies than Scotland. None of the top five U.S. companies was represented until very recently. But IDA sees certain advantages in having come late to the field and even in missing out initially on the industry giants' plans.

"Most of that early investment collapsed in the late 1960s," says Mr David Hanna of IDA. "The new small companies which were springing up had no prejudices—otherwise, they would not have thought of coming to Ireland, where the image was not a technological one."

IDA put together a specific electronics team, which built up a wide knowledge of the industry and its personnel. The companies that IDA sought tended to be small, fast-growing "state of the art" operations, but they were often short of cash and management skills.

Ireland offered them generous grants, tax-free profits (now at 10 per cent, on new investments) and a comprehensive service from IDA to help them establish. The result was that until recently, Ireland could boast of attracting almost every U.S. "greenfield" electronics investment in Europe.

Questions

But IDA's pride was dented last year by the publication of a review of industrial policy, commissioned from the U.S. consultants, Telesis. This questioned the quality of the electronics investment in Ireland, claiming that few vital operations, such as product design, marketing or service, were carried out in the country.

Telesis doubted the long-term future of the industry, unless such operations, with their attendant increase in Irish skills, could be sited in Ireland.

They also criticised the lack of a developed sub-supply industry.

IDA bosses were furious, and flatly rejected some of the Telesis conclusions. They claimed that it was unrealistic to expect such developments in 10 years, in a country with no reservoir of electronic skills. They insisted that the report underestimated the quality of the Irish industry, and the progress already made.

Now that the dust has settled somewhat, there is a general admission that Telesis provided a timely warning against complacency. It may also have improved the standards by which future investment will be judged.

IDA claims it was necessary to overcome prejudice and bring companies to Ireland before attempting to persuade them to establish more vital functions in the country. They say there is gradual "backward integration" in many companies, while recent investments—such as Westinghouse and Analog Devices—tend to incorporate product or process development.

IBM's choice of Ireland as the centre for a key software production facility may be something of a watershed. Not only does it mean that the biggest of the big names has finally arrived, but it has done so with an investment which the Irish could not have handled a decade ago.

Such development now and in the future will require a sharp turn by the Irish education system from its traditional bias towards the academic. There has been considerable improvement, although from an admittedly low base, and the number of graduates in electronic-related subjects has risen sharply.

The Government has invested in facilities such as the micro-electronics research centre in Cork and the applications centre in Limerick. There is a special effort to improve co-operation between the universities and the industry, with companies such as AT + T of the U.S. and Analog engaged in joint programmes with leading academics.

AT + T acquired 45 per cent of an Irish company, Telectron, in 1981. The move was seen as significant for the American giant communications company, as a first, small step into the technology of European telecommunications. Telectron itself is one of the companies which proves that Irish companies can succeed in the electronics field. It was formed in 1960 by three former engineers with the Irish Post Office. In 1980, it was awarded a major contract under the Irish telecommunications programme, in conjunction with the French company, CIT Alcatel.

IDA strategy now is to build a structured industry, with the emphasis on end-product manufacturers, but with a small number of integrated-circuit plants to support them. However, this does not mean that IDA will turn away companies, even if they do not fit into the scheme.

"We will pay more for a good, integrated operation," said one executive, "but we are not in the business of refusing investment. If you get the company to locate, you can always push it in the right direction afterwards."

The major problems now are the development of an indigenous Irish industry—both in supply and new products—and the growing competition for investment from richer countries such as Britain and France.

There is general agreement that Irish companies have failed to meet the exacting standards of the electronics industry for components. It is thought that only 20 per cent of the possible orders are being won by local firms.

Outlook

The outlook is brighter for the emergence of Irish electronics companies. Twenty per cent of new business start-ups prompted by IDA is the last few years have been in electronics. The company, Memory, Ireland, had a remarkably successful launch on the London stock exchange. Other groups such as Mentec are involved in sophisticated process control products.

The reecssion, and the increased competition, may mean that targets for employment of 30,000 by the end of the decade may have to be revised. Countries such as France can offer potential markets which the Irish cannot match, while the budget of the Scottish Development Agency is a source of wonder and envy for IDA.

The Irish may have to look to the development of their fledgling industry rather than increases in size, for the hoped-for successes of the 1990s.

Brendan Keenan

IRELAND'S ELECTRONICS EXPORTS
Current prices (£m)

Products	1977	1980	1981	1982*
Office machines and automated data processing equipment	122.7	256.9	466.3	580
Telecommunications components and equipment	25.3	51.2	77.0	94
Electronics components and equipment	27.3	64.4	71.7	88
Professional, scientific and control apparatus	68.2	103.6	139.6	157
TOTAL	243.5	476.1	754.6	919

* Estimates

How France, West Germany and Italy are attempting to meet the challenge from the U.S. and Japan

Bid to narrow the gap

France

WITH A burst of energy, a large amount of Government-sponsored corporate restructuring, and a healthy dollop of state funds, France is trying to promote its electronics industry into the big league of world producers by closing the gap with the U.S. and Japan.

The trouble is that so far the Government's programme has added up to words but very little action. Already one important aspect of the policy—the plan, given the personal blessing of President Mitterrand himself, to form a joint European front against Japanese competition in consumer electronics—has seriously misfired.

Following the turning down by the West German cartel office of Thomson's bid to take over Grundig, Thomson is to take over Telefunken, the consumer electronics arm of the collapsed German electrical giant AEG, as a "consolation prize" to strengthen its international presence. The deal will increase Thomson's share of the European market in televisions and video-tape recorders to around 20 per cent.

But by being forced to abandon ideas for an ambitious collaboration with Philips (which owns 24.5 per cent of Grundig), Thomson is being driven into the arms of the Japanese companies which the Paris Government was earlier swearing to engage in head-on combat.

The Japanese electronics company JVC — from which Thomson already imports VHS-standard VTRs for marketing in France — owns one-third of Telefunken's Berlin VTR factory.

The plant will now become part of the Thomson empire. And it is logical to conclude that Thomson will strengthen its Japanese links still further by agreeing to use Japan's VHS technology as the basis for the French VTR factory, producing 1m units a year, which M Chevenement has proclaimed will be in operation by 1986.

It is clearly far too early yet to make a firm judgment about the Government's overall plans in electronics. The horizons of both the Government and nationalised industry are drawn towards the medium term; neither Thomson nor Cii HB expect, for instance, to return companies (heavily loss-making) to profit before 1986 at least.

But the two major weaknesses of the Government's policy have become only too apparent.

First, budgetary constraints at a time of economic austerity pose a clear problem. M. Chevenement himself has pointed out that, at a time of severe international competition, the FFr 140bn investment programme (which is meant to group spending by the state, nationalised industries and private companies — including foreign ones such as IBM—in France) appears to err on the low side.

Faced with financing pressures, observers question whether the Government's scarce funds would indeed be better spent by being deployed in selective "niches."

The Government, indeed, has announced a number of big national research projects aimed at concentrating laboratory efforts on areas like a new large national scientific and industrial computer; computer-assisted education and translation systems; and computerised manufacturing of integrated circuits. But, summing up the question mark over the whole "filière" concept, a senior executive at a major nationalised electronics company declares (in private) that it is "mad" and will soon have to be changed.

The second weakness is that Government intervention can be highly confusing and counter-productive for the industrialists themselves. The restructuring of the telecommunications industry—the main strongpoint of the electronics sector—around the two "poles" of Thomson and CGE has been held up for months by inter-ministerial wrangling over which group should be linked to the troubled former ITT subsidiary, CGCT.

Likewise, the high public profile adopted by the Government over the now aborted Thomson-Grundig deal probably complicated what was already a highly difficult and sensitive — some would even say unrealistic — operation. Significantly, Thomson regards many of the statements M Chevenement has made over the key question of future French VTR manufacturing as rather on the rash side.

M Philippe Lemoine, a civil servant at the Industry Ministry, has just delivered to the Prime Minister a report—which has not yet been published officially—which draws some disturbing conclusions about Government direction of electronics.

He calls the Government's large number of bodies designed to promote information technology—which total around 30—"unadapted to the main priorities at stake." He urges more centralisation and a slimming of bureaucracy to promote use of electronics technology in businesses and homes.

Despite efforts by the Post and Telecommunications Ministry to set up regional cable TV systems and automatic information networks like the electronic telephone directory, low penetration of information technology into consumer markets is one of France's weak points. The Government has recognised this with a recently-propounded plan to order optical fibre cabling for 1.4m homes by 1985.

Satellite communications centre at Matra. The company has been taken over by the state to the tune of 51 per cent

Restructuring operations

THE SCALE of the problems facing the French electronics industry has been underlined by the sharp rise in the country's trade deficit in electronics products to FFr 12bn in 1982 from FFr 6bn in 1981.

The sectors showing the largest shortfalls are, not surprisingly, the ones to which the Government is giving the most attention in its restructuring operations:

● Consumer electronics registered a deficit of FFr 8.1bn, caused principally by the buoyant French market for TV sets, video-recorders and hi-fi equipment.

The target of M Chevenement, the Minister for Research and Industry, of setting up France's own VTR plant by 1986 now looks even more difficult to reach on time.

In spite of the renunciation of links with Philips implicit in Thomson's decision to bid for Telefunken, the French company could still co-operate with the Dutch giant over the Industry Minister's plan for joint efforts in producing the new 8 mm standard range of video equipment.

But M Chevenement's suggestion that Thomson could import Philips' V2000 VTRs to replace part of its purchases of Japanese equipment has now been called off completely.

Japanese electronics companies' attitudes to investment in France have, not surprisingly, been coloured by the Paris Government decision last October to slow down video-recorder imports by routing customs clearance via Poitiers in central France.

The measures are still in force in spite of Japan's agreement with the EEC to limit exports of video equipment to the Community. Although the French External Trade Ministry wanted to relax the restrictions, the Government as a whole decided to keep them in force to maintain pressure on Tokyo and underline the French position that Japan still has not moved far enough.

Two companies, Sony and Akai, said late last year that they would shelve investment plans in France in protest against the measures, but they have both recently changed their minds. Akai is going ahead with plans to assemble video recorders at Honfleur in northern France, while Sony is proceeding with building a video cassette factory in S.W. France.

The Government sees the Japanese steps as a victory for its "no-nonsense" attitude in putting up the Poitiers barriers. Japanese companies, led by JVC, meanwhile, are in no doubt that if the Thomson-Grundig deal falls through, they are in with a firm chance for a profitable alliance with Thomson across the whole gamut of consumer electronics.

● The information business registered a deficit of FFr 5.5bn — not including increasingly-electronic office equipment, which was in the red by FFr 3.6bn.

The Government has just announced a substantial capital injection of FFr 1.5bn for Cii-HB in an effort to make the troubled computer company the flagship of France's information technology efforts.

The company has just restructured its operations into four profit centres. These include the SEMS mini computer group being transferred from Thomson and the Transac data transmission company, formerly owned by CIT-Alcatel, which will become part of Cii HB's office equipment division.

Uphill fight

But Cii HB, which compares its present position to that of Britain's ICL before its drastic slimming two years ago, knows that it has an uphill fight to take on IBM on French territory. IBM's French computer business is significantly larger than Cii HB's.

● Electronic components registered a deficit of FFr 2bn. The Government has given priority to the building up of a strong French integrated circuits industry. Last year, for instance, French manufacturers accounted for only one sixth of purchases of MOS semi-conductors purchased.

The sector has been concentrated on two "poles," both in connection with U.S. companies. These are Matra, which runs joint ventures with both Harris and Intel of the U.S. in chip-making, and Thomson, which has signed a licensing accord with Motorola. The Government has just orchestrated the transfer of a third integrated circuits company, Eurotechnique, formerly owned by the Saint Gobain group and National Semi-Conductor of the U.S. to the Thomson group.

David Marsh

Gloomy assessment of long-term hopes

W. Germany

"PERHAPS WE are just going to have to accept that in some areas of the electronics, office equipment and consumer goods, such as televisions and video recorders, for example, West German companies are simply not going to be able to compete with the U.S. or Japan."

This gloomy assessment of the long-term prospects for major sectors of the West German electronics industry from an industry official who knows the sector well, is by no means unique.

Since the mid-1970s, West German Government officials and industry leaders have been aware that the Federal Republic had some catching up to do in order to keep abreast of the development of micro-electronics and its impact on vast areas of the electrical and the engineering industries.

Government programmes to support data processing and micro electronics research and development, and big increases in R and D budgets at companies such as Siemens, testify to the growing awareness of the challenge the industry faced.

Hitherto, however, it has to be said that conspicuous successes as a result of Government programmes have not been the rule.

The challenge presented by micro-electronic technology has been tackled with what some would see as typical German thoroughness but inadequate flexibility. Above all, it seems many companies decided that they had more time than was really the case if they were to make good the deficiencies of the past.

Radical steps

In particular, while recognising the pace of development in the U.S., they under-estimated the speed with which the Japanese would push ahead in the development of integrated circuits and their application in both the computer and consumer electronics markets.

Thus, it is only in the past three years, that radical steps have begun to be taken in many major companies, hence the feeling that in some cases it may be too late.

It is already clear, for example, that Grundig, the leading West German consumer electronics concern, partly because of the losses it incurred in 1980 and 1981, no longer has the financial resources to mount the research and investment effort needed to meet the Japanese challenge in the video recorder market — and that explains in part its desire to merge with Thomson-Brandt, the state-owned French electrical group.

Now that Thomson-Brandt has pulled out of the battle for control of Grundig and has instead decided to settle for control of Telefunken, the AEG subsidiary, Grundig's future remains unclear. Having made it clear that in the long-term it needs a partner, Grundig's hands would appear to be tied, however, for the only strong contender now must be the Dutch electrical giant, Philips.

A move by Philips to increase its shareholding in Grundig would come as a surprise to nobody in the West German electronics industry now.

Desperate game

In the field of data processing and computers the picture is an even less encouraging one. It is not just that no West German company has emerged to challenge IBM in the mainframe market on a major scale. In addition several of West Germany's most likely contenders in the market for personal computers and office equipment have been left at the post and are now playing a desperate catch-up game, whose outcome remains uncertain.

Triumph-Adler, the VW subsidiary and Olympia which is still controlled by the ailing AEG-Telefunken with a 51 per cent shareholding, with Robert Bosch and a banking group holding the rest, are the obvious examples.

AEG-Telefunken's long, and last year, ultimately unsuccessful, struggle to stave off financial collapse, has cast a shadow over the electrical industry. Its financial weakness throughout the second half of the 1970s was a persistent drag on the whole electronics industry for the company has a long tradition of innovative electrical engineering and was highly regarded for its technological capabilities.

The aftermath of its financial collapse is still a burden on the sector, moreover. Robert Bosch, was able to pick up one of the pearls of the AEG-Telefunken's empire, its telecommunications division, as it, too, began in 1981 to show signs of reacting more vigorously to the challenges ahead. But Bosch itself has yet to demonstrate that it has the ability to push through its diversification successfully.

Siemens, the largest concern in the industry, and a company whose research and development spending accounts for around one-tenth of the R and D spending in the Federal Republic is thus more than ever, the banner carrier for the sector.

With its immense financial and management resources the company has been responding aggressively to mounting international competition, concentrating its efforts on fewer more profitable product lines and trying to improve efficiency.

The first effects of these policies, in terms of an improvement in profitability, have begun to appear.

Moreover, in the vital field of telecommunications, Siemens seems to have made the switch from analogue to digital technology with success. Its efforts in the field of integrated circuit development are also bearing fruit. But the charge that it has yet to match the vitality of say Nixdorf, in the computer field, an old reproach which Siemens has had to bear with patience, still seems to be justified.

It would be unfair to suggest that it is entirely the fault of the corporate sector that West Germany has fallen behind in the field of electronics. The strong mechanical engineering tradition in West Germany, inflexibility in the education system where too little adjustment has been made to give greater emphasis to introducing apprentices to micro electronics, and inadequate cross fertilisation between business and the universities are also partly to blame.

Changes

The financial sector, too, has responded inadequately. The lack of an efficient stock market, the unwillingness of bankers to back entrepreneurs with ideas but not tangible assets, and the lack of a venture capital market, have all tended to put a brake on innovation in the electronics industry.

Here, too, there are, however, tentative signs of change. There has, for example, been a vigorous response to a DM 450m programme which the Research Ministry launched to help finance R and D in smaller companies.

In the field of software, smaller firms are being set up with increasing frequency. As to the longer term implications of these developments, it is simply too early to judge.

At all levels of West German industry and Government, there is a clear recognition now of the threat industry faces and efforts to make good deficencies have begun. But these efforts are having to be made when the industry is facing a third successive year of stagnation and weak profitability.

Stewart Fleming

هكذا اصبح الاجل

Hugh Routledge

Olivetti dominates Italy's electronics sector. The group, which specialises in data processing equipment for banks, has also recently brought out a personal computer, the M20. Above: tests being carried out on M20 computers at the Olivetti plant in Scarmagno, Ivrea

A national strategy on the development of Italy's electronics industry is long overdue, as **James Buxton** shows

Vital decisions are still awaited

Italy

THE ELECTRONICS industry in Italy is typical of many things in the country: where a government policy is necessary, but wanting, there is a gap in the industry. Where the industry can survive happily with only a small degree of government aid and intervention, it flourishes.

The result is that there is only one large Italian company in the electronics sector (Olivetti) but many medium- and small-sized ones. The market for electronics goods in Italy is rather more backward than those in Northern countries, and while foreign, especially U.S., companies have plants and sales networks in Italy, most recent investment by foreign companies has been the consolidation of existing presences rather than the arrival of new companies.

Only in the past two years have governments seriously addressed themselves to the question of a national strategy in different sectors of the electronics industry, and there are many areas still waiting for vital policy decisions. It is a far cry from the state-directed drive started by the French Government in the telecommunications sector in late 1960s and 1970s, before nationalisation.

Emphasis

Telecommunications is the area on which the Italian Government has in the past two years concentrated most attention, and some of the trends are now good. From the 1974 oil crisis onwards, successive administrations would not let the main utility, the SIP, charge economic tariffs. Meanwhile, the main state-owned equipment maker, which is now called Italtel, over-invested in what was often obsolescent technology.

Finally, however, SIP was allowed to put its tariffs up adequately and was given new management, as was Italtel.

Italtel decided to form an association with the U.S. company, GTE, later joined by the Italian private sector concern, Telettra, to produce a new version of its Proteo electronic exchange, and it was also allowed to carry out what, by Italian standards, is fairly radical surgery on its workforce.

Italtel made an enormous loss of L120bn last year, but the losses are being firmly reduced, and break-even is expected to be reached on target in 1984.

The government, however, still has to make a decision on a second electronic switching system for the remaining 35-40 per cent of the Italian market which will not be covered by Italtel and its associates. The choices here crucially affect FACE, the Italian subsidiary of ITT, and FATME, part of the L. M. Ericsson group (which was left out of the Italtel collaboration).

The decision will have a crucial effect on the future of these companies, and will also affect the Proteo project.

Conflict

Choices are also needed in the field of telematics: systems industry, equipment for the videotext, teletext and other information devices need to be chosen so that manufacturing in Italy can expand and data transmission networks be installed by the telecommunications authorities.

Typically of Italy, there is a serious conflict, laden with political overtones, over the issue of control of the national telecommunications system between the Ministry of Posts and the SIP, which comes under a *different* ministry.

Elsewhere in the electronics industry, equipment for the *defence field* makes up 80 per cent of the systems electronics sector in Italy, and 60 per cent of its output is *exported*—making a big contribution to Italy's successful military sales abroad.

Italian companies are particularly strong in missiles, fire control systems, and in electronics warfare, in which the private sector concern Elettronica is considered one of the most advanced companies in Eurppe.

Several of the other concerns, led by Selenia and Elsag, are part of the state-controlled STET group which also owns Italtel and SIP.

Like most of the Italian defence industry, central co-ordination is far from obvious and products succeed or fail according to whether there is a big foreign market for them. However, Italian military equipment has to be bought and certified by the Italian armed forces if it is to carry conviction in markets abroad, and the industry is now worried about cuts this year in the already small defence budget.

"The Ministry of Defence cannot plan for the future because of its annual budget constraint, and it does not spend enough on research and development," according to Commander Enzo Brancaccio of the Rome division of ANIE, the Electrical and Electronic Producers' Association.

Even so, including Italy's small but successful space equipment industry, as well as security and traffic control systems, systems electronics are reckoned to have sold about L1,300bn worth of products last year.

The making of data processing equipment in Italy in concentrated heavily in the hands of Olivetti, which with its still substantial conventional office equipment section had group sales of about L3,340bn last year.

Olivetti concentrates particularly on systems for banks and other related forms of distributed data processing. It recently brought out a personal computer and it has a strong position in electronic typewriters. It is weak in telecommunications, despite some licensing deals with Canadian and British companies, and this may hamper it in the electronic office field.

IBM, the most profitable company in Italy of those which publish their results, has most of the market for larger computers (as well as being in other products) in Italy — a market which Olivetti had to abandon in the 1960s for lack of Government orders.

The automation of the colossal public administration is gradually taking place, but Italy is far behind other European countries in this respect.

Italy is very weak in manufacturing consumer electronics — such as colour television sets — thanks to an unforgivable delay on the part of the Government in deciding what system to adopt. The result is that at least 80 per cent of the Italian colour television market is in foreign hands, because the West Germans and other manufacturers were ready before Zanussi and other domestic producers.

The Government has been developing a scheme to strenghen the industry with the injection of L240bn in funds and the creation of a company to be called REL in which Zanussi and Indesit would predominate. The scheme, formalised last year, has still not been implemented and may yet be revised again.

Italy has long had a weakness in the components field and although the country's only semi-conductor maker, SGS-Ates, is progressing and now makes Toshiba integrated circuits under licence. It made increased losses last year of L55bn.

The domestic market is too small for it to be an economic producer of a full range of products.

The somewhat patchy nature of the Italian electronics industry, and uncertain government direction has not encouraged many new companies to establish themselves in Italy in the past decade. Foreign investment has mainly been in consolidation of existing operations, by companies such as IBM.

The government does not give special financing incentives for electronics companies—as will be apparent, government finance for the whole industry is not abundant—but there are the usual incentives for investment in the Mezzogiorno, or South.

A recent survey of total investment in Italy by U.S. companies of all kinds showed that it had remained static in real terms since 1970. Some had left, others had come, but there had been no net increase. Italy had done worse in this respect than Northern Europe, where there had been a net increase. The blam for this was put on Italian inflational labour conditions and general uncertainty.

Those may also be reasons why companies have not rushed to Italy to use it as base for supplying other markets.

A re-think on finance

Successful investment in electronics has required a re-think of some traditional attitudes among financial institutions, as **Terry Dodsworth** reports

MR CLIVE SINCLAIR, one of the most prolific British inventors to emerge in the electronics revolution, recently offered a 10 per cent stake in his company, Sinclair Research, to a group of Britain's largest institutions.

The issue was eagerly gobbled up at a price of £13.6m, valuing the whole of the company, which was founded only three and a half years ago (and currently relying on only one main product), at £136m.

"We could not afford not to subscribe," said an official of one of the institutions, explaining the risk it had taken. "A company with a potential for growth like Sinclair's probably comes along only once in a generation."

Sinclair's decision to raise non-bank funds from a group of outsiders is typical of the financing techniques which have accompanied the rise of new technology industries.

In Britain, and even more in the U.S., these sort of businesses have tended to tread an unconventional route, expanding with the help either of venture capital or the burgeoning new over-the-counter stock markets in New York and London.

It is now an established process for these companies to launch themselves with one product, expand rapidly, and then move onto the stock market to raise funds for the second generation development.

Equity capital is invaluable to fast-moving companies of this type because it matches the requirements of an extremely innovative market. Most high technology companies are also high-risk enterprises: even if a product becomes a market leader, it may be quickly outdated, and there is a heavy premium on new ideas. In addition, these companies are prone to cash-flow problems, as rapid expansion demands the build-up of inventories ahead of sales.

Banks are not ideally geared for this kind of investment. Where there is risk, they like to try and secure their loans, and high technology companies often have little in the way of fixed assets—indeed, many companies prefer to act as ideas laboratories and marketing businesses, sub-contracting the hardware manufacturing. And bank debt has to be regularly serviced, wereas equity partners may well be happy to take part of their benefit from the growth of the company.

Within the U.S. and the UK, where the equity markets are well developed, and financial services flexible, the methods of serving the new technology companies have thus moved towards emphasis on equity. One method of supply is via venture capital companies, which obtain their return by backing winners, funding new businesses through their teething problems, and liquidating their investments once the new group is established.

The institutions in Britain are also moving tentatively in the same direction. As an alternative to investment in technology stocks on the stock market, some pension funds are now trying to look for start-up or private situations where they can put money into an enterprise at a very early stage in its development.

The Sinclair case is the most celebrated example of this process; but Prudential Assurance, for example, now has a division, Prutec, which is entirely oriented towards finding and funding new technology enterprises.

The institutions have been pushed in this direction in their search for growth assets. On the main grown-up exchanges in the UK and U.S., their investments are inevitably directed towards relatively mature companies that service markets which cannot be expected to show much further growth in the developed industrial world.

Investment in the so-called growth sectors — electronics, pharmaceuticals and so on—has become exceptionally expensive because of the weight of funds that has been pushed into these areas in recent years. Even on the UK's Unlisted Securities Market, the institutions tend to be hampered because of the difficulties in dealing in large enough amounts. Hence the search for companies at an earlier stage in their development.

Some British institutions invest more freely on the over-the-counter market in the U.S., where the companies are larger and the market consequently more liquid. But even without the extensive support of the big funds, the two-year-old London USM has proved a buoyant source of finance for new flotations capable of boasting a technological image — even when these are somewhat tenuous. The market also provided a stepping stone towards a full London quote.

Both the junior markets in the U.S. and UK also go some way to answering the needs of high technology companies for steady new injections of risk capital at an early stage in their development.

In the past new companies have usually been able to spend several years building up their base and generating new equity from retained profits before offering themselves to the public. The nature of technology companies frequently inhibits this long period of gestation: the life cycle of new products can be very short, so companies need to capitalise as quickly as possible on a development in order to raise the funds for the next stage.

Thus, a company can come to the U.S. only two years after formation, where it will then be able to continue to raise fresh finance, or move onto the grown-up exchange if it outgrows this stage.

Equity funding and venture capital backing is not so easy to find in many other European countries. In France, for example, the capital markets are much more reliant on the banking system.

Because of the smaller size of the Paris stock market, and the slow development of the over-the-counter market, equity funding of the type available in London is limited. The effect of this shortage is that the Government has been led into playing a much more direct role. The authorities, for example, are now trying to popularise the idea of a system of participating shares which have the combined characteristics of debt and equity.

Advanced largely by State-funded industrial development organisations, loans are made at lower rates than those available from the banks, but a proportion of the charge is related to the level of profits.

France is also beginning to create a network of venture capital organisations. Siparex, based at Lyons, has been established, for example, with the help of bank shareholders to take stakes in a variety of new technology companies. But the movement in general has still not developed the strength of similar systems in the UK and U.S., and a large element of new technology funding undoubtedly depends directly on the State.

Under projects developed by the Socialist Government, the planners are working towards a Japanese-style approach of concentrating resources on specific fields, so that both the public and private sectors will be able to draw on Government funds for selected schemes.

In essence, this approach relies much more on large corporations to provide the main thrust towards the nurturing of technology-based enterprise.

West Germany also appears to suffer from a lack of pure venture capital-type finance. The post war development of the country has been largely funded by the banks, which have been ready to take equity participations in big companies with solid assets.

This structure of finance has tended to reduce the overall flexibility of the capital markets, leading to a weak stock exchange system which tends to militate against venture capital: for the venture capitalist, the equity market is an essential component in the process of developing a company, because it enables him to realise his capital (and profits) when the fledgling group is offered to the public.

Without such a system, West Germany seems to be suffering from a dearth of entrepreneurial, fast-growing high technology companies.

A key element in the solution to the problem of shortages of skilled staff has to be the use of electronic information itself to aid the training programme. This can be achieved in part, through video training systems and computer-assisted learning. Above: The control room at Barclays Bank's video studio at Teddington, Middlesex

Urgent need to increase supply of skilled staff

The attitudes of university teachers and industrialists regarding education in electronics are often widely different, Patrick Raymont reports

EVERYONE AGREES that skilled manpower is needed to exploit the new business opportunities presented by microelectronics. Everyone agrees that there are shortages of the necessary skilled people, but the size and scope of the problem is nowhere adequately defined.

Part of the difficulty is in knowing the scope of the microelectronics field—it spills over into a whole series of related topics: information technology, office automation, robotics, computing, and so on.

What is more, the new electronics-based technologies are becoming increasingly all-pervasive so that staff who are skilled in microelectronics are being employed in nearly every sector of industry, commerce and administration.

Microelectronics overlaps all the traditional categories under which statistical manpower data are treated, as well as the traditional areas of education and training courses: hence the inability to compare supply and demand, or to plan effectively for the future.

How, then, are the various European countries reacting and what kinds of activities are being carried out?

First of all, secondary level schools in various European countries have programmes under way. In the UK, Department of Industry money has already placed at least one micro in all secondary schools, and there is an extension of the scheme to primary schools. The Department of Education has set up a microelectronics education programme to support the supply of hardware with software, advice and teacher-training.

French objectives are unclear

In France, there is a "ten thousand micros" programme to introduce microcomputers into schools. The objectives of these programmes are far from clear and they make little direct impact on supply of skilled people.

Vocational training systems vary a lot between countries, as do the measures adopted to bring microelectronics into the vocational training programmes. In countries where there is a traditional apprenticeship system, new types of apprenticeship have been established (eg, the "electronic control equipment fitter" in the Netherlands), while older apprenticeship schemes have had some microelectronics training added.

In other countries new types of courses have been developed for those entering employment (eg, the Danish "Datanom" course for data processing staff); furthermore, microelectronics-related studies have been added to traditional courses.

In Germany, where a dual system prevails, only a few experimental schemes exist on a national basis, but many of the states have introduced schemes on a regional basis.

In the UK, the Manpower Services Commission has stimulated many developments. The National Computing Centre has operated such schemes as the "Threshold" scheme to train junior computer staff and the Microelectronics Applications Programme training scheme.

In France, a special project has been established to provide the public sector with trained informatics staff, and microelectronics related studies are being introduced into vocational courses for as widely varied jobs as accountancy and equipment maintenance engineering.

At university level, the technically oriented institutions (for example, the polytechnics in the UK) have generally responded well to the challenge of introducing microelectronics elements into their courses.

Generally, at the university level however, there is a mismatch between the perceived needs of industrialists and the academic provision. There are notable exceptions, of course. One has only to think of Grenoble in France, of Loughborough in the UK, BIFOA (Industrial Institute for Organisation and Automation) at Cologne University in Germany to appreciate that industry and the academic world can have close links, but in general it does not happen.

Nevertheless, sweeping condemnations of university courses in computing are made by industrialists in the UK, in Germany and in the Netherlands. Why is there this gulf?

The attitudes of university teachers and industrialists to the provision of education are often widely different. The university teacher is generally seeking to inculcate wisdom in his students, through a knowledge of general concepts and broad methods of enquiry. He is not much concerned with pragmatic attempts to deal with the particular.

The industrialist is looking for people who can tackle the problems of real life, and is interested in academic concepts and methods only in so far as they are able to contribute to getting the job done.

Furthermore the rewards in life, and hence the motivations, are again different. For the academic, achievement is measured in terms of refining concepts and methods in general; for the industrialist it is the achievement of a practical solution to a specific problem which counts.

The result of these differences in attitude and motivation reinforced by experience in each case, is that it is virtually impossible to move successfully between the academic and industrial fields and contribute effectively to both. Certain exceptional people have, of course, succeeded. And industrialists have often managed to obtain useful input from academics through consultancy. Such consultancy has, however, often proved quite ineffective.

One can seek a solution in broadly two ways. The first is to invent mechanisms which enable industry to harness existing academic capability in a reasonably effective manner. The second way is to revolutionise the existing academic pattern.

Naturally, the first way is the more popular (especially among academics!), but these are increasing pressures to adopt the second.

Consider a couple of initiatives of the first sort: The "Science Park" concept has been imported from the U.S., where the concept was launched 30 years ago, as a means for bringing industry and academics more closely in touch with each other. The idea has been to concentrate firms and research and development laboratories in a science park where they could benefit from being close to a university and able to call on excellent laboratory facilities and the expertise of academic staff.

A close inter-action with the university will in theory shorten the time between innovation and product development giving enterprises a decisive competitive edge over rivals.

Small companies, in particular, will feel the benefits of a powerful research organisation and facilities they could not afford to provide for themselves.

University academics can interact directly with tenants of the science park through consultancies, directorships and by founding companies themselves. Graduates will be able to take jobs in the park while tenants can take courses and research degrees at the University.

A number of such parks now operate in Britain and elsewhere in Europe. One interesting initiative emanating from Scotland is a recently-announced £100,000 scheme, involving eight Scottish universities and five colleges and a number of companies, to encourage more effective links between the academic and industrial organisations. The aim is to stimulate even more innovation of the type which has led to the so-called "Silicon Glen" development.

Exemplifying the second approach are the demands for the recognition of a new strand in education identified in France, for example, as "technical culture."

We are now living in an era in which our culture will be greatly influenced by the micro chip. Hence, the argument goes, we can only adopt the new technology if this technical culture is integrated into our education system alongside the more traditional cultures.

How can it work in practice?

Technical culture is seen as involving an ability to work with, handle, use, manipulate and do things with technical devices. There is a clear parallel here with the message of the "Education for Capability" movement sponsored by the Royal Society of Arts in the UK.

The problem is to see how such a revolutionary step could be implemented in practice. There are already indications that even the existing minor modifications to the system described above are straining the resources of the education system.

Equipment and staff for microelectronics-related courses are, for example, widely reported to be inadequate to meet the demand. How could we resource a major revolution? And would such a conservative profession as the teaching profession permit this to happen, anyway?

Is there a solution to the problem of increasing the supply of skilled staff? Even if we do not know how many people to train, it is clear that for most categories of skilled staff in microelectronic related areas, we need more than are now being produced.

A key element in any solution of the problem has to be the use of electronic technology itself to aid the education and training effort.

This can be done through video training systems and computer-assisted learning. A technique which has great potential is the use of videodiscs, controlled by microcomputers.

With the already extensive experience of the Open University, with an Open Tech. Programme just started, and with several experienced producers of video materials and computer assisted learning programmes, Britain is in a position to take a lead in this approach.

Among several promising activities is a Science and Engineering Research Council-sponsored activity under development by the Open University to retrain engineers in manufacturing (including robotics), and in the industrial applications of computers.

Vocational training programme

The situation throughout Europe varies considerably with some countries (the UK included) active in promoting new education and training initiatives, while other countries, such as Italy, having yet to make really significant efforts.

The EEC itself has recently announced a programme for 1983-87 on "Vocational Training and the New Information Technologies" which is set against a background of unemployment at 10 per cent of the active workforce in the EEC, where 40 per cent of the unemployed are aged 25 or under. Naturally, therefore, many of the proposed measures are designed to alleviate this situation. However, important priority areas include:

- Training for small- and medium-sized enterprises which seek to modernise their production processes using new technology.
- Training for large services sector enterprises automating their administration.
- The evolution of comparable qualifications throughout the Community.
- Public awareness through the broadcasting media.

The author is group manager, education and training strategy, at the National Computing Centre, Manchester, tel 061-228 6333.

Forthcoming FT Surveys on Electronics

● Electronics in Banking and Retailing, Wednesday, March 30.

Electronic technology is a mixed blessing for bankers and retailers alike. It offers, on one hand, opportunities to provide new and cost-effective services to customers without additional staffing. On the other hand, staying ahead in the technology stakes is a major worry, while organisations which have never been a part of the traditional banking scene can offer new banking services.

● Computers in Business, April 11.

The microcomputer is hailed as "machine of the year" in the U.S. In Japan, the government is looking to the next generation of intelligent machines. In the UK and Europe, plans are being laid to invest substantial sums in computer technology. The computer in business, in fact, is coming of age. This survey will set out to explain why.

Other surveys later this year will include:

- **U.S. Electronics, Tuesday, June 28.**
- **Electronic Security, Tuesday, July 12.**
- **Mobile Communications, Wednesday, July 27.**
- **Manufacturing Automation, Tuesday, September 20.**
- **Software, Thursday, September 29.**
- **Telecommunications, Tuesday, October 25.**
- **Canadian High Technology, Thursday, November 17.**
- **Investing in High Technology, Wednesday, November 30.**
- **Business Information Services, Tuesday, December 13.**